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23 December 1982

# USSR Report

MILITARY AFFAIRS

No. 1729

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23 December 1982

# USSR REPORT MILITARY AFFAIRS

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## CONTENTS

### ARMED FORCES

Changes in 'KRASNAYA ZVEZDA' for 1983 Outlined (SOVETSKIY VOIN, Oct 82) .....	1
Lt Gen Volkogonov on Ideological Conviction (D. Volkogonov; SOVETSKIY VOIN, Oct 82) .....	4
'KRASNAYA ZVEZDA' Troop "Appeals" (Editorial Report) .....	9

### GROUND FORCES

Life in Garrison Described (L. Seregina, E. Udovichenko; SOVETSKIY VOIN, Oct 82) ...	10
---	----

### NAVAL FORCES

German Source Describes New Shipboard Helicopter (MARINE-RUNDSCHAU, Aug 82) .....	15
--	----

### STRATEGIC ROCKET FORCES

Maj Gen Loktev on Rocket, Artillery Forces Day (V. Loktev; AGITATOR ARMII I FLOTA, Oct 82) .....	18
---	----

### PERCEPTIONS, VIEWS, COMMENTS

Table of Contents of 'FOREIGN MILITARY REVIEW', July 1982 .....	24
Need for Constant Combat Readiness Stressed (Editorial; ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, Jul 82) ..	27
Comments on U.S. Plans and Activities in the Pacific (B. Peresvetov; ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, Jul 82)	33

Comments on NATO Exercises in West Germany (S. Ivlev; ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, Jul 82) ....	39
Comments on Organization of U.S. Mechanized Brigades (P. Isayev; ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, Jul 82) ...	46
Comments on Air Support for U.S. Rapid Deployment Forces (V. Nikolayev; ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, Jul 82).	53
Comments on Japan's Air Defense Forces (V. Tamanskiy; ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, Jul 82).	57
Comments on the New U.S. B-1B Bomber (L. Leonidov; ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, Jul 82) .	65
Comments on Foreign Unguided Aviation Rockets (N. Germanov; ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, Jul 82) .	69
Comments on Development of New U.S. Cruise Missile (R. Radomirov; ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, Jul 82).	70
Comments on U.S. Navy Digital Radio Communications Systems (A. Stefanovich; ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, Jul 82)	71

## ARMED FORCES

### CHANGES IN 'KRASNAYA ZVEZDA' FOR 1983 OUTLINED

Moscow SOVETSKIY VOIN in Russian No 19, Oct 82 (signed to press 14 Sep 82)  
p 25

[Article by unknown author: "Always on the Forward Edge"]

[Text] The newspaper KRASNAYA ZVEZDA has become a close friend and good adviser for many Soviet people.

For almost 60 years KRASNAYA ZVEZDA has kept a daily military chronicle of the Soviet armed forces relating how the military skill of the armed protectors of the homeland is forged, how their moral-military character matures, and how combat readiness is improved in units and ships. The newspaper writes about this each time in a new way because times change, military science is developing, and the tasks of the Soviet troops are becoming complex and very important all the time.

Let's glance at some old issues of KRASNAYA ZVEZDA. In 1924, the newspaper related the training attacks of the Red Cavalry; in 1944, the shattering strikes of the rocket-launcher units against the fascist hordes; and still 20 years later, the round-the-world voyage of Soviet atomic submarines.... On the pages of the newspaper are Halkin Gol and the battle around Moscow and Stalingrad and the Victory Parade, the first steps in the development of rocket technology, and training launches of modern strategic rockets.

The newspaper was honored with four awards of the homeland--the Orders of Lenin, the October Revolution, the Red Banner and the Red Star.

During the Great Patriotic War the writers Konstantin Simonov, Mikhail Sholokhov, Aleksey Tolstoy, Il'ya Erenburg, Vsevolod Vishnevskiy and many others with their publicist appearances in KRASNAYA ZVEZDA inspired the defenders of the homeland towards a complete rout of the German Fascist occupying force. In the postwar years, its correspondents along with the atomic submariners hoisted the flag of the homeland at the North Pole and report on military matters from various "hot spots" in the world.

In the Accountability Report to the 26th Congress of the CPSU Central Committee, Comrade L.I. Brezhnev, speaking about the military potential of the Soviet armed forces, characterized it as a strong alloy of highly technical equipment, of military skill, and of an indestructible moral spirit. Now the

sons and grandsons of the heroes of the Great Patriotic War are already standing in the ranks of the defenders of the homeland. They did not undergo the severe experiences which befell their fathers and grandfathers. But they are loyal to the heroic traditions of our army and our people. The newspaper KRASNAYA ZVEZDA helps today's Soviet soldier just as in the years of the Great Patriotic War to realize the profound historical mission of the defender of the socialist homeland.

Commanders and political workers read articles in it about modern weaponry and tactics, the development of Soviet military art, the problems of further improving the combat readiness of the armed forces, about the armies of foreign countries, and about the aggressive blocs of imperialism.

The publication of a newspaper on the questions of building communism, the international communist movement, and the achievements of modern science and technology assists those who work on increasing their theoretical knowledge. General interest is provoked by materials which propagandize the successes of the Leninist foreign policy of the Soviet Union, which illustrate the events of international life, and which show the life and successes of people in the socialist commonwealth countries and of the soldiers in their armies.

The newspaper is alive with the events of the day. The struggle of the Soviet people for successful execution of the decisions of the 26th CPSU Congress and the May 1982 Plenum of the CPSU Central Committee are broadly illustrated on its pages. From issue to issue KRASNAYA ZVEZDA relates the competition for the well-deserved celebration of the 60th anniversary of the formation of the USSR.

Beginning 1 January 1983, on Saturdays, the KRASNAYA ZVEZDA will be published in six pages with a supplement. This will expand the possibilities for illustrating the training and service of army and navy personnel, and it will allow the newspaper to show more completely all aspects of the many-sided life of our troops. The editorial staff intends to publish in the supplement the most outstanding materials from the military annals of the armed forces and to tell about the little-known pages of the Great Patriotic War, the searches and finds of explorers of the people's deeds, today's ordinary heroes of past military engagements, reserve and retired officers, and the training of youth for service in the armed forces.

It is planned to publish excerpts from short stories and novels prepared for the press; the recollections of veterans; reporting on the achievements of modern science, technology, and cosmonautics; and feature stories and dispatches about the troops who are performing international duty in friendly Afghanistan. The topics of moral indoctrination of young officers and family problems will occupy a well-deserved place in the supplement.

Authors of the material will be writers, prominent literary and art figures, scientists, party and soviet workers, well-known commanders, commanders and political workers, innovators of production, and journalists.

Subscriptions of KRASNAYA ZVEZDA are accepted from all citizens through the enterprises of Soyuzpechat' [Main Administration for the Distribution of Publications], through communications departments, through public disseminators of the press at the place of work or residence, and also in military units, on ships, in institutions, in Soviet Army and Navy VUZ's, and in USSR Ministry of Defense enterprises. The subscription price for KRASNAYA ZVEZDA with the supplement remains as before: 7 rubles 80 kopecks per year, 3 rubles 90 kopecks for 6 months, 1 ruble 95 kopecks per quarter, and 65 kopecks per month.

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## ARMED FORCES

### LT GEN VOLKOGONOV ON IDEOLOGICAL CONVICTION

Moscow SOVETSKIY VOIN in Russian No 19, Oct 82 (signed to press 14 Sep 82)  
pp 26-27

[Article by Doctor of Philosophical Sciences and Professor Lieutenant General D. Volkogonov: "Ideological Conviction"]

[Text] Some time ago in the area of Vyaz'ma, young explorers found a rifle shell casing in which a note was preserved, written by Private Aleksandr Vinogradov, and as they succeeded in determining, it was soon lost in a skirmish with the enemy. The lines on the yellowed scrap of paper which were traced in the heat of a mortal battle were executed with tremendous spiritual strength: "There were 12 of us who were sent to the Minsk highway to block the route of the tanks. And we steadfastly held out. And now there are only three of us left: Kolya, Volodya and I, Aleksandr. The enemy penetrates. Now still another has fallen--Volodya from Lithuania. But the tanks continue to penetrate. There are two of us but we will stand as long as our morale lasts, but we will not let them through until the approach of our own. And now I alone remain, wounded in the head and arm. Possibly I will die. I am from Frunze, a Russian, with no parents. Farewell dear friends...."

It is impossible to read without deep emotion this human document filled with spiritual strength. The soldier stood to death. It is possible to defeat such people with bullets and shells, but it is impossible to conquer them. In the same way, it is just as impossible to destroy the genuine and great idea of material strength. The person with such ideological conviction has not only tremendous moral strength, but also "possesses" spiritual values of the first magnitude.

What are the sources of spiritual strength? In what way is it manifested? And how can a personality mold it within himself? The answers to these questions are given in the universal book, the name of which is life of socialist society and its history.

The ideas of the Marxist-Leninist classics have illuminated the great truth in this book: like an invincible moral strength, conviction grows from an understanding of the profound justice of communism and from the ability to give one's all in serving great ideas. In vividly graphic form, Karl Marx expressed the strength of true ideas. Namely they, he wrote, "get control over our thoughts and subordinate our convictions to themselves, and towards which reason rivets our conscience. Not having broken their heart, these are the bonds from which it is impossible to escape...."

The victory of the socialist revolution, wrote V.I. Lenin, will be guaranteed when the workers "succeed in finding in themselves sufficient class consciousness, high-mindedness, self-sacrifice, and perseverance..." In particular high-mindedness, as one of the most important spiritual values of socialist society, qualitatively anew characterizes Soviet man and the Soviet soldier. Ideological conviction is similar to the spiritual reactor which nourishes the intellectual, moral and physical strength of a soldier. The crystals of man's ideological conviction are formed from the synthesis of several spiritual elements. We'll mention them.

First is the true Marxist knowledge which allows personalities not only to answer "eternal questions" about the meaning and purpose of human life, but also to penetrate the profound confidence in the insuperability of communist ideals. The man of an idea is able to die for it, but not to renounce his own lifeline and not to betray high purposes.

The Soviet people remember the deed of General D.M. Karbyshev. The fascists captured him, seriously wounded, on the battlefield. In the course of time, the enemy attempted to persuade him to collaborate with them. Contemptuously, the Soviet patriot resisted these solicitations. The Hitlerists promised him large rewards, threatened him, and subjected him to agonizing torture.... Up until the end Karbyshev maintained his loyalty to the homeland, to the oath, and to military duty. Before death he flung these words filled with profound meaning into the face of the enemy: "My convictions do not fall out along with my teeth from the vitamin deficiency in the camp ration."

People long ago observed that boundless confidence in the truth of the cause which one is serving equips the personality with strength which is capable of overcoming the most difficult tests. Goethe once said that "anyone possesses sufficient strength to fulfill that in which he has conviction." True words! But they are all the more true when convictions are based on the truth of Marxism-Leninism!

The second element of ideological conviction is based on noble moral feelings. Without human emotions, V.I. Lenin observed, there can be no confidence also in the achievement of truth. The feelings of love for the homeland, solidarity, collectivism, optimism, and hate towards the enemy are capable of inspiring a person to strive for a heroic act and self-sacrifice.

Now long ago in 1918, Vladimir Il'ich Lenin arrived at the Michel'son plant to participate in the festivities on the occasion of the soldiers' taking the oath "Solemn Promise of the Red Army Man" of loyalty to the revolution. In many of the well-known pictures Lenin, standing on the platform with red bunting, is taking the oath of the military units. In reality that was only at the very beginning of the festive ceremony. Then Vladimir Il'ich quickly came down and stood in the formation of soldiers. One more Leninist voice, which was repeating the thrilling words, joined the common harmonious choir of voices: "...serve the Red Army and you serve all working people. Betray it and you betray the people. Its enemies are your enemies. Its victory is your victory, but its defeat is your ruin. It and you are the same. Serve it as yourself."

These soldiers of the revolution, who were uttering these proud words, were seized by a feeling of profound participation in the great deed of freeing all workers and a feeling of boundless confidence in the final triumph of communist ideals. Noble feelings as it were have produced a spiritual fusion of revolutionary truths and elevated emotions, the name for which is ideological conviction.

And he who stands today in a military formation, and he who will take his place in it tomorrow always will remember that Lenin in particular gave the invigorating impulse to the accumulation of a spiritual charge. In particular he taught us how to act in order not only to arm the revolutionary soldier with the great truth of Marxism, but also to give him the possibility to experience it in his own conscience.

Finally, ideological convictions of a soldier also rely on will, a third important element. Will power is always essential in order that truth manifests itself in deed. Only will can transform good intentions into acts, concrete steps, and worthwhile deeds. As a rule, he who has done something great in his life and achieved a high moral objective did it thanks not only to talent, abilities, and skill; but also to will which, similar to an internal moral spring, motivates a person.

Contemplation is alien to the convictions of a soldier, a sergeant, a master sergeant, and an officer. That knowledge which he acquires in political or some other studies is only the point of departure for activities, actions, and behavior. The following objectives are the active embodiment of the correct views, thoughts, and ideas for life, and the realization of them in practice and in reality.

Perhaps sometimes a person with a weak will as it were swims along with the current, not applying particular effort for personal growth, fulfilling obligations undertaken, and rendering assistance to his comrades. The personality with a weak will has convictions that are passive and that are inactive and flaccid. The person without a will is most subject to temptations, weaknesses, and to bad influences. He does not strive in life, but drifts; and while not able to use truth in full measure, though perhaps, it is also thoroughly assimilated by him. A determined person is able to rule over himself, and his convictions are extraordinarily operative and active. And however the conditions and life's situation develop, such a soldier or sailor always will be loyal to his life's principles which form the content of his ideological convictions. Circumstances can change, but never true convictions.

Therefore when one or some other soldier does one thing in public but something else when by himself, and when by word of mouth he is a mature person but in practice is found to be flawed, then one can say about such a personality that it rocks along on the waves of old bourgeois morality, like that heard in the words of Moliere's Tartuffe: "He who sins in silence does not commit a sin." It is certainly not necessary to explain that such dualism (dichotomy) of word and deed has nothing in common with true conviction.

The elements we examined, and which form the internal structure of conviction, allow the soldier always to be "in the know." A person with conviction does not tolerate an indifferent attitude towards the matters of his unit, does not submit to untruth and eyewash, and does not accept alien morals which sometimes let someone know of them in the conduct of individual soldiers. Conviction obliges the soldier courageously to defend his life's attitude and to struggle with evil and moral weeds which still are encountered in some military collectives. These weeds are characteristic of those who are tardy in mental growth. A hypocritical form of convictions can appear particularly in this category of people. In practice hypocrisy, like a calling card of unstable convictions, can be expressed in insincerity, egoism, bigotry, and indifference. In an army environment similar manifestations, as a rule, are of an isolated and individual nature, but the struggle with them must be conducted continuously and purposefully. The ideological conviction of a soldier as an expression of his devotion to the homeland, the people, and communist ideas to such a degree presupposes his irreconcilability towards the enemies of socialism. Every day we become witnesses to the fact that the class enemy, which looks at us only through the perspective of a sight, has not given up his guileful intentions to restrict socialism, to loosen our unity, and to bleed us dry through the arms race. This sick world which caused fascism, numerous wars, and social ills is attempting by any methods and means to replace our moral values in the conscience of people with bourgeois myths in which values are no more than in a sketched delicacy.

In a soldier irreconcilability towards the enemies of socialism is manifested in high vigilance and exemplary execution of military duty, and in knowing how to give the correct evaluation to a political event and how to show maturity of artistic taste. The person with conviction does not simply observe the principles and standards of our life, but also actively affirms them in daily life. Otherwise it is possible to collide with the facts of immorality, skepticism, and nihilism which characterize moral bankruptcy of the personality. With that it is impossible to defer the question of maturity to "afterwards." The person who has not become mentally mature on time also cannot become it. Of course, much depends on the collective, educators and comrades, but mainly on himself. Ideological conviction is not given with birth; it must be developed. And first of all, it must be developed through persistent studies, independent work by mastering the treasury of Marxism-Leninism and materials of the party congresses and plenums. The soldier who strives to mold a whole personality from himself uses all possibilities for a more profound familiarity with Lenin's works, the history of the Communist Party, and the analysis of current events in the country and abroad. With the purposeful soldier, the requirement often arises to have a "sacred notebook" where it is possible to note down ideas, thoughts, and conclusions that are especially close to him. Thus, Sergeant Nikolay Kovyazin entitled his notebook (we looked at it with the permission of the headmaster): "These ideas are my advisers." Here are only several excerpts from the notebook which speak through Kovyazin about the creative perception of Leninist ideas:

--Concerning devotion to a great cause one must judge not by words, but by deeds (PSS, volume 41, page 302):

--Know how to perceive the sprouts of something new and support them (PSS, volume 39, page 25);

--Be irreconcilable towards enemies, parasites, swindlers, and hooligans (PSS, volume 35, page 201);

--Know how to distinguish truth from falsehood, no matter what the rewards. (PSS, volume 30, page 176);

--Work out your own attitude and your own opinions yourself (PSS, volume 41, page 313).

There are several pages of similar excerpts which reflect the individual perception of the Leninist spiritual wealth by a young soldier. It is apparent in them how man's thought pulsates and takes control over the enduring values in his creative laboratory of self-indoctrination.

The Leninist lines call for activity, actions, and deeds. But they transform the pearl of profound thought into the next "brick" of ideological convictions--the chief spiritual property of a soldier's personality.

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## ARMED FORCES

### 'KRASNAYA ZVEZDA' TROOP "APPEALS"

[Editorial Report] OW300646 Moscow KRASNAYA ZVEZDA in Russian 30 November 1982 frontpages a 2,000-word appeal (obrashcheniye) by personnel of the Smolensk PVO Air Defense Missile Regiment to Air Defense Forces troops to "achieve new successes in combat studies and service in the new training year." The appeal is headlined "Vigilantly Guarding Our Beloved Homeland's Skies." A 2,000-word appeal to Air Force personnel from an unnamed "Guards Bomber Regiment" is carried below it under the headline "achieving new peaks in flying skill." The appeals follow a similar appeal to Ground Forces Troops from Kutuzov Regiment personnel frontpaged by KRASNAYA ZVEDA 28 November, headlined "always be combat-ready." The appeals were reportedly adopted at meetings of unit personnel held to adopt 1983 socialist pledges for military work.

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## GROUND FORCES

### LIFE IN GARRISON DESCRIBED

Moscow SOVETSKIY VOIN in Russian No 19, Oct 82 (signed to press 14 Sep 82)  
pp 32-34

[Article by SOVETSKIY VOIN special correspondents L. Seregina and E. Udovichenko: "Service Gets Its Beginning Here"]

[Text] A little town....Strictness is added immediately to the affection for this word as soon as it is connected with the concept "military." The homeland stands behind military towns and it is like being behind a reliable shield. They are not marked on a map, but each one has its own individuality because the active life and training of the troops teems within them. Now while an inspection of the military towns is in progress in the armed forces of the USSR, we decided to tell about one of them.

In a classroom that looks like a hangar, the training turrets of combat infantry vehicles have been lined up and in the vicinity on the same noisy premises are the training mock-ups of the mechanic-drivers. Antanas Birvidas, yesterday a worker from one of the Siauliai plants, confidently shifts the levers and continuously glances at the screen where the road speeds along towards him. It tests the young sergeant with unexpected slopes and grades, complicated turns while speeding, and the accuracy of his reaction.

Instruction is in progress on the parade ground and in the field, but the military town, like a well-constructed and inhabitable house with its adjusted routine once and for all, awaits the soldiers.

We proceed along the avenue with the political worker Valentin Leonidovich Batrakov. The pines meet us and rustle trustingly, casting shadows and glancing into the asphalt mirror of the parade ground and paths, suffused with a warm resin scent. The delicate green carpet of lawn "woven" with the hands of soldiers beckons the eye. A landscape which gives the impression of touching the true artists is not to be found in every city. Not disputing this handmade landscape, but inscribed on it, as if emphasizing a pine grove blessing, are a club, a mess hall, a new medical station, and other structures of red brick neatly constructed according to a common architectural design. They contrast in color with the white brick elongated rectangle of barracks.

In this living and constant dialogue of austere lines of barracks walls and the cheerful neatness of other buildings, architects came up with the idea of uniting a soldier's duty and military labor with the beauty and romance of service rituals and with the optimistic world perception of the Soviet soldier.

Think about it: this eye-pleasing panorama elevates the mood and evidently in some way helps the recruit to become accustomed to the unfamiliar surroundings and to ease the acute experience of separation from home.

Having caught my impression, Valentin Leonidovich remarked: "I like this little town. It has its own charm both in winter and in summer. Pines and gravel are all around. The air is clean and healthy. Do you feel it? I'm not afraid of being boastful to you, but around the district you probably won't find a deputy commander for political affairs who would not like to be here for a while. People come to us to learn about the experience of the town's setting, and they ask who had the idea of esthetically combining the landscape and the architectural decision. We have quite many other merits. But the secret is simple. We think both of the soldiers and of ourselves in maintaining this order. The soldiers live here temporarily, but our entire life is spent here."

One could hardly believe that at one time there were exposed dunes here, but here and there they have become overgrown with pine forests which indeed are temporary structures. But all personnel joined in the construction of new barracks in place of the obsolete ones. Commanders showed a model and everything was thought out in detail. Each person saw that the matter was done seriously, with a rough estimate for the future, and felt like Robinson [Crusoe] making strange places suitable for living. Of course, everything was done without a break in instruction. Time was cut out as well as the fact that people became jacks-of-all-trades. There would be wit and inclination.

...This is the barracks of the first company. It's not a model, but simply nice. But the cleanliness here is indeed exemplary. On the left by the window is a bed and over it a portrait of Hero of the Soviet Union Petr Lavrent'evich Cheryabkin who is listed in the company's roll forever. Rows of such neatly covered beds as if the soldiers had been making them all their life, and had not just recently slept on their mothers' feather beds and sofas. The generations of young troops are changing under this constant, exacting and understanding glance of a hero-peer, a friend who was protecting the homeland by his deed.

In a cozy corner is a color television set which was awarded to the company for first place in the regimental review. Just as if it were an ordinary fact. Well, where in the armed forces today are reviews of units' amateur work not being conducted? However, the amateur work here was special: it reflected the individuality of the company where almost all the soldiers had a higher education. The company theater of miniatures originated by readers, musicians, dancers, and singers became evidence of the cultural level of the troops. Sergeant Kheygo Sakhk directed the amateur work. It's true that the artists who won the television set have been separated already among other

units. They took with them the experience of forming a creative collective, and faith in their talent and the spark of a dream about the future. But as they say, it is the first step that costs. Persevering Kheygo Sakhk considers it very interesting to find new talents and create collectives that are not like each other. Kheygo himself is an Estonian in a company where soldiers of various nationalities serve, and each one embellishes the program of a new concert by performing his own native song and dance.

...We set out farther around the little town. Dressing the ranks towards the monument to Cheryabkin, a platoon marches past along the detachment parade ground. A song along with them disappeared into a field. And again there is that emptiness and quiet saturated with training and cares when people perform precisely the work assigned to them without a fuss. In a word, it is an ordinary day.

The cooks and chefs are working the soldiers' kitchen. Scurrying along the buffet counter of the soldiers' tearoom, which incidentally occupies first place in the district, Lyudmila Yakovlevna Akulina lays out the rolls and sweets. She checked to see if the table game sets were complete; she found out who among the soldiers had a nameday today; and she filed the current issues of newspapers.

Quiet and coolness met us in the club, and an echo repeated our voices somewhere above the circle of the stalls. I compared the hall with a university auditorium. Batrakov explained this to me very much to the point. Lectures are conducted in the club. The daily quiet saves the voices of the soldiers and the thoughts of their guests, interesting people who appear here often. Lyubov' Grigor'evna Gruzina, the library director, sends out for books for the town in order to renew its sensible coziness, to replenish stocks, and to set up new stands for incoming readers. All cultural educational work, as they say, is structured towards the soldiers.

We take a glance into the barber shop, into the soldiers' store, and into the medical station. And likewise, everything there is ready and waiting for the troops: customers, clients, and even patients although it's difficult to imagine that this young military youth can be ill with something.

"Well, don't say that," rejoins Senior Lieutenant of the medical service Aleksandr Yevgen'evich Borisov, "not all of them arrive here seasoned soldiers and some are afraid of cold water...." And he cheerfully adds: "But have you ever thought about the fact that today's soldiers must get used to boots and learn to wind foot wraps? We teach this to the newcomers and they train with us regularly."

We converse in the spacious extra laboratory organized here just as in other garrisons. There is enough work for the laboratory technician Natal'ya Vasil'yevna Kulyutnikova, the wife of a warrant officer, to conduct research work and to perform clinical and a series of biochemical analyses.... We glanced into the consultation rooms, but in the surgical room personnel were busy with a bandage for a soldier who had injured a leg. All the remaining rooms--therapeutic, stomatological, and rehabilitative--were empty. In the office

of functional diagnostics, we were shown the operation of precision instruments. In 3 minutes it is possible to get the photograph of an internal organ. I would like to tell about other attractions of the medical station, but I will emphasize the main point: everything in it is modern and it is equipped no worse than some regional dispensary. But they treat both soldiers and officers and members of their families--the garrison is still not in a city.

However, I can't restrain myself--I like the unusual "curtains." They replaced the dull white material with a painted matte silhouette of the town on each windowpane. They're both light, always pretty, and clean--they only have to be wiped. The touching and lovely utilitarian creation of someone from the artist-soldiers...

In the course of our meetings with the people of the little town, everyone was included in the conversation who creates an atmosphere here of attention to the demands and needs of the soldiers--both officers and specialists of the mass professions.

Since 1949 the manager of the military trading store Valentina Aleksandrovna Bubyakina, the widow of a pilot-officer, has served her life's main work--military trading. Fate did not coddle this woman. As a girl Valya watched as the fascists executed her father. She traveled quite enough around the garrisons with her mother, who worked also in military trading, and then with her husband. She understands everything about the disposition of a military person.

With the years her maternal warmth, and how it is guessed by the young troops is always unknown, has become stronger for the troops who are separated from their home, and it disposes them towards frankness.

They come into the store probably not so much for purchases--in the situation what could a soldier buy on his modest pay?--, but in a word to chat with the kind Valentina Aleksandrovna and her assistants, the wife of a retired officer Klavdiya Nikolayevna Dubkova who has not yet worked a year here, and Lina Nikolayevna Shumilova who joined the store the year they were just laying out the modern little town.

Everything was in their eyes too: turf and soil were delivered, the lawn is laid out, the roads were leveled and asphalted, and the houses and service buildings were constructed according to a single design. These people work in the service field. And strictly speaking, every so often they too must have points of contact with what we mean by "the indoctrination of a soldier." However, through the rich experience of their own life they, by the way like all women in every military town, are involved in the growth of a soldier because in contact with him, and at times unnoticeable to themselves as well, they influence the order of his thoughts and the open young mind through new impressions.

"We want the soldier to feel the warmth of our relationship to him. And you try to make an eye-pleasing display. You help him to select a modest gift for his mother, sister, and fiancée." Thus Valentina Aleksandrovna, translating

the entire range of feelings and moods into the language of her profession, simply explains her motives. "And we strive so that the store will become a model. It's not glory for the sake of it."

Yes, it is necessary for them to conform to the model of their little town which is understood not as something foreign, even though it is prestigious, but as the heart of the matter--to place at the soldier's disposal the maximum of facilities and good impressions which, they all are confident, resound in his service, in his health, and in the maturing process of a young person. They also gained recognition for their work. Valentina Aleksandrovna, a shock worker of communist labor, was awarded several "Winner of Socialist Competition" badges and a "For Valiant Labor" medal. Her store mates Dubkova and Shumilova also are mentioned with encouragement. They are in a bustle all day delivering products, filling orders for soldiers and officers, but there are also those very important orders such as delivering a color television set, furniture, or a refrigerator for an officer's family. Continuing the trip around the little town, we meet Guards Captain Aleksandr Petrovich Vasyak. The commander of the outstanding company expressed his thoughts just as if he knew and recognized the purpose of my arrival: "If there is order in the area, then the person also is prepared internally. A hand is not raised to toss a cigarette butt or to show slovenliness. So we consider the culture of manners as an indispensable condition of indoctrination of a disciplined soldier in all respects...."

It is difficult to find in the disposition of the commander, a rear service worker and the cultural education worker in this garrison, a facet which strictly divides his regulation duties and his human feeling for a soldier who was yesterday's schoolboy, but today is a citizen studying military science. There is no formal attitude towards indoctrination work, because all the townspeople are firmly united by their destinies, loyalty to their duty with the army, and by its tasks. Also, concern about the soldier becomes a quality of any officer's character and his second nature. There emerges around a soldier that atmosphere and that moral ground which influence the growth of the soldier. Also later not by chance, a soldier who has served his time recalls with gratitude his comrades and commanders, and the serene and beautiful little town among the pines and dunes.

...On a summer morning still before sunrise, the din of a bird awakens the soldiers, and in a window which opens to the sky and daylight one can see the mischievous squirrels as they jump from branch to branch and fling pinecones. Or, the freshness of the forest permeates here on the unhurried springs of the rain, as if all of nature with its smells and sounds enters the barracks, and calls to set out for the day's intense military activities in order to preserve and protect this exceptional world.

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## NAVAL FORCES

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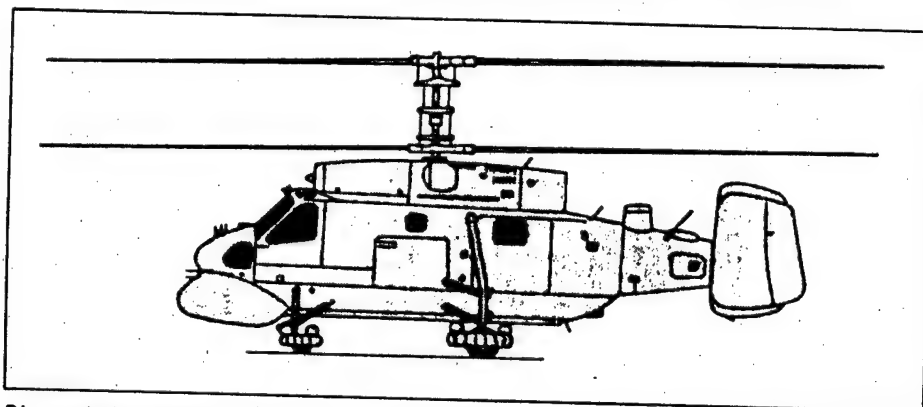
### GERMAN SOURCE DESCRIBES NEW SHIPBOARD HELICOPTER

Stuttgart MARINE-RUNDSCHAU in German No 8, Aug 82 pp 430-431

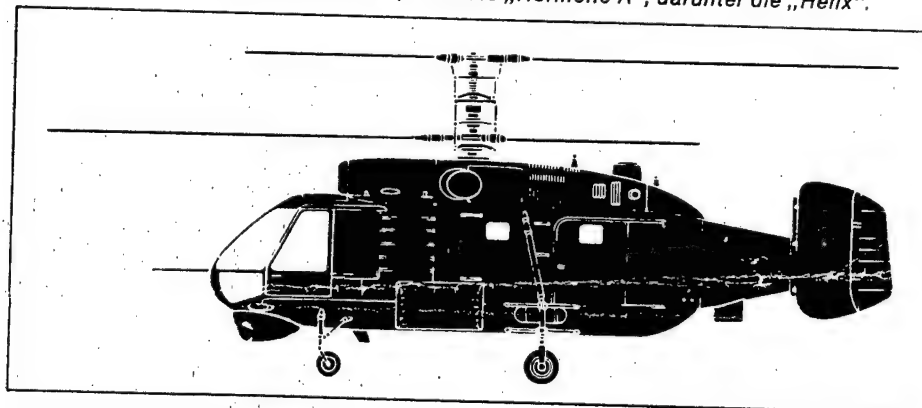
[Text] A new type of Soviet shipboard helicopter has been recognized at the time of the joint "Zapad 81" maneuvers late in the summer of 1981 in the Baltic area. Two of them were stationed on a new missile destroyer, Udaloj; one of them was painted in standard colors and bore the emblem of the Soviet naval airforce, VVS-VMF (Voennij Vozdusnyj Sili--Voennij Morskich Flota); the second, judging by its appearance, seemed to belong to the civilian AEROFLOT. These new helicopters are constructed similar to the Kamov-25, NATO code name "Hormone," the standard shipboard helicopter of the Soviet navy, and are called Kamov-32. NATO has given them the code name of "Helix" (snail, snail-line). They differ from the "Hormone" by, among other things, an enlarged cockpit and a stronger horizontal stabilizer as well as a somewhat different shape of the engine compartment. Both models share in common their equipment with two coaxial 3-blade rotors (which can be folded back for "parking" in the hangar), and two Glushkov GTD-3 turbine engines. It is thought that the Helix has not only been developed in submarine chaser configuration, but--appropriately modified--also as transporters for VERTREP (Vertical Replenishment) missions for material and personnel. The dimensions of the Helix are somewhat larger and the length is 12m (Hormone: 9.80 m), its height 5.50 m (Hormone: 5.47 m), and rotor diameter and starting weight amount to 16.75 m and 9,500 kg maximum, respectively (Hormone: 15.75 m; 7,500 kg). In spite of this the dimensions of the present hangars don't seem to suffice, which will be dealt with later.

A special characteristic of the Soviet warships equipped with Helix helicopters is a "Fly Screen" device, apparently an approach radar. This is a dice-shaped rotation box having an estimated border length of under 1.50m; extruding from its front are a round convex disk and next to it two horn-like sensors, one above the other. This device is found not only on the missile destroyers of the Udaloj class (there on a starboard platform directly behind the rear border of the double hangar), but can also be seen on some other units: once on the "Atomnyj Raketnyj Krejser" (as it was recently called in the Krasnaja Svesda) Kirov, also starboard, this time at the rear tower mast on the middle side platform, as well as on the fifth Kara cruiser, the Petropavlovsk, again starboard, directly adjacent to the rear headlights. These units equipped with the Fly Screen device have two Round House devices each, which presumably serve helicopter navigation. Apparently the Fly Screen and Round House devices are coordinated.

By the way, it can also be seen on the Petropavlovsk that the hangar is clearly higher than on the other Kara cruisers, by an estimated 1.50m. This is also likely an indication that a Helix helicopter is also present on the Petropavlovsk. In the future, it probably won't be difficult to notice the Helix helicopter when paying attention to these characteristics. The example of the Petropavlovsk Kara cruiser makes it clear that the hangar must be changed first on the large antisubmarine ships. In other units--such as the submarine chaser carriers of the Kiev class and the submarine chaser cruisers of the Moskva class, the command cruiser Admiral Senjavin, the landing craft of the Rogov class, the tenders of the Don and Ugra class which have been equipped, the large militia supply ship Berezina, the submarine rescue ships of the Elbrus class and the hospital ships of the Ob class--it must be assumed that their hangar dimensions are sufficient. It is peculiar that the brand new missile destroyers of the Sovremennyj class do not show such Helix indications. There may be several explanations for this, the most probable being: that the Helix configuration as reconnaissance/target data determinator necessary for the Sovremennyj class does not exist yet and they must keep relying on the Hormone B. This would not exclude a rearming at a later date. At any rate, the hangar is already geared for the Helix dimensions.



*Die sowjetischen Bord-Hubschrauber, oben die „Hormone-A“, darunter die „Helix“.*



p. 430. The Soviet shipboard helicopters, the Hormone-A (top), and Helix (bottom).

[Photo Caption]

p. 431. This photo of the stern section of the Kara cruiser Petropavlovsk shows the clearly enlarged hangar. Consoles are attached on both sides, with a Round House device installed on each.

View of the Helo platform of the missile cruiser Udaloj with one of its two Helix helicopters. The Fly Screen approach radar--at one end of the hangar--is seen starboard.

Also taken on the Helo platform of the Udaloj: A Helix with folded rotor blades, ready to be brought into the hangar.

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## STRATEGIC ROCKET FORCES

### MAJ GEN LOKTEV ON ROCKET, ARTILLERY FORCES DAY

Moscow AGITATOR ARMI I FLOTA in Russian No 19, Oct 82 (signed to press 29 Sep 82) pp 10-14

[Article by Maj Gen V. Loktev, chief Propaganda and Agitation Department and deputy chief of Political Directorate of the Strategic Rocket Forces: "Guarding the Achievements of the Soviet People"]

[Text] Rocket and Artillery Forces Day is one of the outstanding traditional holidays of our country. It originated in 1942 at the height of the Great Patriotic War. This holiday is dear to every Soviet person. It reminds us of the severe historical events of November, 1942 and the beginning of the rout of the Fascist German forces in the vicinity of Stalingrad.

Since 1964, 19 November has been observed as Rocket and Artillery Forces Day by decree of the Presidium of the USSR Supreme Soviet.

According to established tradition, on this day the Soviet people extol the never fading deeds of the front-line soldiers; honor the glorious missilemen and artillerymen who are worthy successors to the military glory and heroic traditions of Soviet artillery; and do justice to the outstanding Soviet scientists and designers, to the engineers and technicians, and to the defense industry workers who are the originators of the powerful rocket and artillery weapons.

This year it is being observed under the conditions of high political and labor activity of the Soviet people in all areas of public life who have widely developed socialist competition for the successful fulfillment of the decisions of the 26th CPSU Congress, of the May 1982 Plenum of the CPSU Central Committee, and for the well-deserved celebration of the 60th anniversary of the formation of the USSR. The workers of our great homeland, who are closely rallying around the Leninist party in a united multinational family, constantly strengthen the economic and defensive power of our homeland.

In the CPSU Central Committee resolution "Concerning the 60th Anniversary of the Formation of the Union of Soviet Socialist Republics" it says: "The last 60 years are marked by the swift social and economic development of the Soviet Union. The national income for this period increased repeatedly. The share of the USSR in world industrial production rose from 1 percent in 1922 to 20 percent at the present time."

Social relations reached a high degree of maturity. Under the leadership of the Communist Party, a developed socialist society was built in which the public character of the economic and social policy of the CPSU and the Soviet state is revealed more and more vividly. During the 1970's alone almost two times more resources were allotted for raising the standard of living of the people than for the preceding decade.

The Soviet people welcomed the decision of the May 1982 Plenum of the CPSU Central Committee with complete approval and unanimity. The food program approved at the plenum of the CPSU Central Committee responds to the fundamental vital interests of the Soviet people. The country's workers perceive party matters and plans as their own vital business and they apply all their energies in order to solve successfully these immense tasks.

It is necessary to solve the tasks of communist construction in complex foreign political conditions. In recent years, the reactionary forces of the West led by the United States moved to a deliberate exacerbation of the international situation and a heightening of the military danger. Covering with the myth about "a Soviet military threat," they expanded the arms race on an unprecedented scale.

The American administration headed by President Reagan is taking an extremely dangerous course. Military expenditures have reached unprecedented proportions. An increase of more than 40 percent in appropriations for the development of strategic offensive forces is planned for the 1985 military budget, as a result of which the number of nuclear warheads capable of being carried in one launch will increase by a factor of 1.5 by the end of the 1980's.

The growing military preparations for war by the United States and its allies are vividly disclosed in speeches by Comrade L.I. Brezhnev, general secretary of the CPSU Central Committee and chairman of the Presidium of the USSR Supreme Soviet, and by Marshal of the Soviet Union D.F. Ustinov, member of the CPSU Central Committee Politburo. Consistently leading the struggle for peace, the Communist Party of the Soviet Union jointly with the parties of the fraternal socialist countries are constantly concerned that our borders are always reliably protected.

Missilemen and artillerymen contribute deservedly towards increasing the defensive power of the socialist state. As with all members of the armed forces, they see it as their duty to maintain constant vigilance, to be in constant combat readiness, and to provide reliable protection of the peaceful labor of the Soviet people who are building communism.

Soviet artillery was born in the October days of 1917 and absorbed the better traditions of the 600-year development of domestic artillery. Artillery detachments of the Red Guard and artillery units of the old army which came over to the side of the revolution became its framework.

V.I. Lenin attached enormous significance to the development of Soviet artillery. His military correspondence, which pertains to the period of the civil war and foreign military intervention, is evidence of this.

The Great Patriotic War, the most violent of all wars ever endured by our homeland, was a severe test and a thorough examination of the strength of the Soviet multinational state and its armed forces.

During the defensive engagements of the first period of the war, Soviet artillerymen, closely coordinating with troops of other branches of forces, inflicted destructive strikes against the enemy and substantially undermined the offensive power of its tank armies. Artillery was the main fire power of the ground forces both in defense and in offense. It was rightfully called the "god" of war.

During the last war, artillerymen brought down 427 million shells and mortar shells on the enemy and destroyed more than 48,000 fascist tanks and assault weapons and 167,000 guns and mortars. The country's defense industry for the war years produced more than 825,000 artillery weapons and mortars.

The homeland values highly the distinguished service of its artillerymen in the war years. More than 1.6 million artillerymen were awarded orders and medals for courage and bravery with 1,800 of them awarded the rank of Hero of the Soviet Union, and S. Petrov and A. Shilin received it twice.

Observing Artillery and Rocket Forces Day, the Soviet nation and its armed forces express profound gratitude to their native communist party. In its leadership of the armed forces they see the main pledge of their invincibility, the inexhaustible source of their strength and indestructibility, and the basis and main condition of military might of our socialist state.

In the postwar period, profound and truly revolutionary reforms in the armed forces were implemented under the direct leadership of the party and raised their might to a qualitatively new stage.

The USSR possesses everything necessary for equipping the army and navy with missile weaponry: heavy industry and skilled technical cadres. Our country is the homeland of the theory of jet propulsion and modern rocket construction. The names of K.E. Tsiolkovskiy, F.A. Tsander, S.P. Korolev and other pioneers of rocket technology are known to all the world.

The wise, far-sighted policy of the CPSU enabled the Soviet people in a short time to gain a brilliant victory: to develop nuclear rocket weaponry which immeasurably increased the defensive power of our state and of countries of the socialist commonwealth. A new service of the armed forces, Strategic Rocket Forces, was created in December, 1959 in accordance with the decision of the CPSU Central Committee and the Soviet government. This was a measure of necessity in response to brandishing of the "atomic club" by American imperialism. Rocket forces became the basic means of restraining the aggressive aspirations of imperialism.

Due to the concern of the Communist Party and the Soviet people, Strategic Rocket Forces are in constant readiness to inflict a strike against any aggressor. In peacetime also they perform a combat mission of national importance by their continuous military duty.

Other services of the armed forces also are equipped with nuclear missile weapons. In recent years, the firepower, striking force and maneuverability of the ground forces have increased significantly. Operational-tactical and tactical rockets comprise the basis of their firepower. The artillery of the ground forces also has grown qualitatively; there are new, powerful systems of cannon, howitzer, antitank and rocket armament. The combat resources of the Air Defense Forces, the Air Forces and the Naval Forces have increased immeasurably. But as powerful as modern military technology could be, man is its sovereign as before. The rocket forces and artillery possess not only modern weaponry and military technology, but also outstanding cadres, people and experts in their combat specialties who have unlimited devotion to the homeland.

Today in the Strategic Rocket Forces, almost all unit commanders have a higher military-engineering education and the majority of them are graduates of military academies. More than 60 percent of the officers have engineering training and more than 90 percent of them are high-grade specialists. Major qualitative changes occurred in the private and sergeant structure--99 percent of the rocket troops are communists and Komsomol members.

In many ways the high general educational training of youth, and also that major military-patriotic work with predraft youth which the party, trade union and Komsomol organizations conduct on the spot, facilitate more rapid development of modern rocket and artillery combat technology. DOSAAF organizations and schools which train radio telegraphers, operators, drivers, and other specialists contribute significantly to the training of youth for service in the armed forces.

In response to the fatherly concern of the Communist Party, the missilemen and artillerymen day by day perfect their military skill, persistently master the most complex military technology, achieve new successes in socialist competition, strengthen discipline and organization, and increase vigilance and combat readiness. They are always on the alert.

Only people who are devoted to their socialist homeland, ideologically steadfast, and morally and physically hardened are capable of being in a state of constantly high mobilization and concentration. Our soldiers, sergeants, warrant officers and officers are precisely those also. They are always vigilantly guarding peace and socialism. Rocket troops celebrate their traditional holiday with the successful completion of the training year and with new achievements in combat and political training towards fulfilling their socialist responsibilities.

The current training year, the year of the 60th anniversary of the formation of the USSR, is marked by increased requirements for a level of combat and political training, an exacting and self-critical approach to evaluating that which has been achieved, aspiring to work better and more effectively, and searching for new and more effective forms and methods of educational-training work.

The party organizations are the real centers of educational-ideological work. At the 6th All-Army Conference of secretaries of primary party organizations,

CPSU Central Committee member and chief of the Main Political Directorate of Soviet Army and Navy, Army General A.A. Yepishev noted: "They function in the densest mass of servicemen, are the political nucleus of the troop collectives, and through all their work actively promote the realization of party policy in the area of strengthening the country's defense." The Komsomol organizations of units and detachments conduct active work in communist indoctrination of youth, increasing combat readiness and strengthening military discipline.

The pioneer of socialist competition in the rocket forces, the personnel of the outstanding unit commanded by Lieutenant Colonel I. Shelestov, provide an example of selfless labor in perfecting military skill and fulfilling socialist responsibilities. All the soldiers here are high-grade specialists and nearly 80 percent are advanced level specialists. There are quite a lot of similar units in the rocket forces. Increased combat readiness and training of the missilemen are the result of the intense work of commanders, political organs, headquarters, and party and Komsomol organizations. Every third rocket soldier is an exceptional worker [otlichnik] in combat and political training.

The rocket forces are young, but the decorations shine on many of the combat banners under which the troops serve. And this is explainable. Indeed our first rocket units were formed on the basis of artillery units which became famous in the years of the Great Patriotic War. Having replaced the veterans, the rocket troops carefully preserve the military traditions of the older generation and multiply them still more through daily military labor. The revolutionary, military and labor history of the Soviet people stir in the hearts of the troops the urge to learn very well and to serve conscientiously. Thus resolute people, and purposeful and extremely collected rocket masters are shaped as their patriotic feelings get stronger. And not by chance, on many banners scorched by the fire of past engagements, awards received in peacetime for military skills now adjoin the combat decorations of the war years.

The tradition of high revolutionary vigilance; of irreproachable organization, precision, and discipline; and of loyalty to the military oath and to soldierly duty has become the moral standard of the daily life and service of rocket troops.

The deeds performed in peacetime by Privates D. Bushuev, V. Kostenko, Z. Zkir'yanov, V. Markovnenkov, and N. Zhal'man; by Private First Class A. Kistanov; by Sergeants N. Nikishin and V. Nakonechnyy; and Lieutenants I. Gavrilov and V. Basov will never be forgotten. Unwavering, they went fearlessly into fire and rescued people and military equipment, they pulled drowning people from icy waters, and they bravely joined the fight with the elements without sparing their own life in executing combat training tasks in the most complex conditions. Many of them were awarded decorations and medals. We can be proud of them, we can take them as a model, and their patriotic deeds are worthy of emulation.

Major work is conducted in the rocket forces to improve the way of life and cultural leisure of personnel, independent activity is developed, and competitive sports are conducted. A patriotic emotion for a model public order and high culture in all garrisons under the motto "Study, work and live the Leninist and communist way" has become the standard of life. It promotes the communist indoctrination of personnel, a strengthening of military discipline, and an increase in combat readiness of the forces.

For a little more than 20 years the Strategic Rocket Forces, on the alert in constant combat readiness, have guarded the borders of our state. Crew replaces crew at the consoles of the formidable rockets. The personnel unit in rocket crews changes twice a year, but the level of their combat readiness is not reduced for 1 day.

Inspired by the historical decisions of the 26th CPSU Congress and the immense plans and tasks of the 11th Five-Year Plan, the loyal sons of the Soviet people, missilemen and artillerymen, are profoundly aware of their personal responsibility for the security of the socialist homeland and they do everything necessary for further increasing combat readiness and vigilance and perfecting military skill. Reliably they defend the peaceful constructive labor of the Soviet people and the achievements of the Great October Revolution.

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PERCEPTIONS, VIEWS, COMMENTS

TABLE OF CONTENTS OF 'FOREIGN MILITARY REVIEW', JULY 1982

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press 7 Jul 82) pp 1-2

[Full-text translated articles published in this report are indicated with an asterisk (\*); excerpted translation -- with a double asterisk (\*\*)]

[Text] Contents	Page
*"High Combat Readiness -- Call of the Times" . . . . .	3
GENERAL MILITARY PROBLEMS	
*"U.S. Intrigues in the Pacific Ocean Zone"--B. Peresvetov . . . . .	7
*"Combined Bundeswehr Exercise 'Scharfe Klinge'"--S. Ivlev . . . . .	11
"The CIA in the Service of U.S. Imperialism"--V. Krayev . . . . .	16
"1982 Budget of France's Ministry of Defense"--N. Voronov . . . . .	20
"The Negev Desert -- Bridgehead for Israeli Aggression"--A. Luganov . .	24
GROUND FORCES	
*"U.S. Mechanized Division Brigade in the Offense"--P. Isayev . . . . .	27
"Britain's Army Aviation"--V. Yevgen'yev . . . . .	31
"Man-Portable Antiaircraft Missile Systems"--A. Tolin . . . . .	33
"West German AUTOKO Automated Communications System"--Ye. Livanov . . .	38
"Dutch DAF YP-408 Armored Personnel Carrier"--N. Fomich . . . . .	41
"Test Your Knowledge. Tanks of Capitalist Countries" . . . . .	42

## AIR FORCES

*"Employment of Strategic Aviation in the Interests of the 'Rapid Deployment Forces'"--V. Nikolayev . . . . .	43
*"Japan's Air Defense"--V. Tamanskiy . . . . .	46
*"The New U.S. B-1B Bomber"--L. Leonidov . . . . .	51
**"Unguided Aviation Rockets"--N. Germanov . . . . .	54
*"Promising Land-Based Hypersonic Cruise Missile"--R. Radomirov . . . . .	58

## NAVAL FORCES

"Naval Forces of the Republic of South Africa"--Yu. Yur'yev . . . . .	59
"Italian Minesweeper-Minehunter 'Lericcie'"--Yu. Petrov . . . . .	63
*"U.S. Navy Digital Radio Communications Systems"--A. Stefanovich . . . . .	66
"Radioelectronic Equipment of EA-6B Prowler Aircraft"--F. Voroyevskiy . . . . .	68
"Destroyers of NATO Nation Navies"--V. Afanas'yev . . . . .	70
"NATO Naval Exercise 'Blue Harrier 82'"--V. Khomenskiy . . . . .	74

## REPORTS, EVENTS, FACTS

"U.S. Show of Force in the Far East" -- "Swedish Articulated Tank" -- "Helicopter Sonar Unit" -- "Training Center at (Kottesmor)" -- "Device for Taxiing Aircraft on Dirt Surface" -- "New U.S. Joint Chiefs Appointments" . . . . .	75
--	----

FOREIGN MILITARY CHRONICLE . . . . .	79
--------------------------------------	----

## COLOR PLATES

"Dutch DAF YP 408 Wheeled (8 x 6) Armored Personnel Carrier" -- "Destroyers of NATO Member Nation Navies" -- "Japanese Air Force F-4EJ Fighter-Interceptors"
--

The articles by Soviet authors in the chronicle are based on materials in the foreign press. This issue contains illustrations from "Jane's", the books "British Army Today and Tomorrow" and "Strategic Air Command," the newspaper JERUSALEM POST, and the following journals: AVIATION WEEK AND SPACE TECHNOLOGY, ARMADA INTERNATIONAL, ARMED FORCES JOURNAL, DEFENSEER JAPAN, SOLDAT UND TECHNIK, MILITARY TECHNOLOGY AND ECONOMICS, NAVY INTERNATIONAL, FLIGHT INTERNATIONAL, AIR ET COSMOS, AIR FORCE, OESTERREICHISCHE MILITAERISCHE ZEITSCHRIFT, and U.S. NEWS AND WORLD REPORT.

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3024

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## PERCEPTIONS, VIEWS, COMMENTS

### NEED FOR CONSTANT COMBAT READINESS STRESSED

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press 7 Jul 82) pp 3-6

[Editorial: "High Combat Readiness -- Call of the Times"]

[Text] All the daily activities of the men of the Soviet Army and Navy, all their daily concerns are without question subordinated to the main objective -- maintaining units and warships in a continuous high state of combat readiness. The defenders of the homeland are carrying out their patriotic and internationalist duty with deep awareness of their responsibility for the security of the productive labor of the builders of communism. Comrade L. I. Brezhnev stated from the rostrum at the 26th CPSU Congress: "...Every time, when it is demanded by the interests of our country's security, defense of peace, when it is necessary to help victims of aggression, the Soviet serviceman appears before the world as a selfless and courageous patriot, an internationalist, prepared to surmount any and all difficulties."

The entire history of our socialist homeland is by right called heroic. In a savage struggle with our numerous enemies, the Soviet people, under party guidance, have defended their freedom and independence, were the first in the world to build a developed socialist society, and are today successfully building communism. Two devastating wars, which were forced upon us by international reaction, ended in total defeat of the imperialist aggressors and demonstrated the unconquerable vitality of the socialist system and the strength of the military organization of history's first worker and peasant state.

Today the Soviet Armed Forces are staunchly guarding the borders of our homeland. They have been in the past and will continue in the future to be a reliable bulwark of the freedom and security of their people, a faithful ally of the armies of the brother countries in joint defense of the socialist community against encroachments by imperialist aggressors.

Constant combat readiness is a determining indicator of the combat power of the USSR Armed Forces. They are capable at all times of repulsing and thwarting aggression, from whatever quarter and whatever means and methods the adversary may employ.

Vladimir Il'ich Lenin, substantiating the objective need of reliable defense of the worker state and pointing out concrete ways to strengthen it, stressed: "We must not rest on the laurels of the blows we have already dealt imperialism; at all costs we must keep our Red Army in a state of total combat readiness" ("Poln. Sobr. Soch." [Complete Works], Vol 42, page 130). The Communist Party is faithful to Lenin's behests. At all stages of the struggle to build a new society, it devoted unabating attention to ensuring a high level of Armed Forces combat readiness. We are compelled to do so by the intrigues of imperialist reaction and its endeavor to impede development of the world revolutionary process with the aid of arms.

The 26th CPSU Congress, comprehensively analyzing the international situation, pointed out that world imperialism, and particularly U.S. imperialism, has adopted a policy of undermining détente, escalating the arms race, a policy of threats and intervention in the affairs of others, and crushing of the liberation struggle. Adventurism, willingness to gamble the vital interests of mankind for the sake of their narrow, selfish aims -- this is particularly glaringly manifested in the policy of the most aggressive imperialist circles.

Voices in the West are unceasingly insisting that the leading NATO nation -- the United States -- must be stronger than any other country in the world and that the North Atlantic bloc must build up its nuclear arsenals and exert pressure by all possible means on the Soviet Union and the other socialist nations. Such statements are not mere empty words. Specialists at the U.S. Brookings Institution have calculated that since 1945 Washington has considered variants of employment of nuclear weapons on 19 occasions, including four times against the USSR. Current U.S. presidential advisers Payne and Gray frankly state: "The United States should plan for victory over the Soviet Union." Official U.S. military doctrine calls for launching a "preventive" nuclear missile strike against our country and the initiation of a "limited" nuclear war in Europe and other armed conflicts simultaneously in various parts of the world.

In the interests of achieving the aggressive global aspirations of imperialism, large-scale preparation of the material foundations for war is being undertaken, including war with unlimited employment of nuclear weapons. In recent years, especially since the Reagan Administration has come to power, the United States has sharply increased military appropriations. In the period 1960-1980 Pentagon expenditures tripled, while they will increase by a factor of 2.2 just in the current 5-year period, and will exceed 350 billion dollars in 1985. In the "strategic program" for the 1980's announced by the White House, the main emphasis is placed on increasing the combat capabilities of land-based inter-continental ballistic missiles, strategic bombers, and nuclear-powered missile armed submarines.

The U.S. decision calling for full-scale production of neutron weapons is also leading to an increased military danger. The Pentagon is building these weapons primarily for the European theater. They are counting on getting the people of Western Europe to accept neutron weapons as a normal, allegedly "defensive" weapon. This is outright deception of peoples. The employment of neutron warheads would inevitably lead to mass annihilation of the civilian population and fatal consequences both for the present and for future generations.

The United States is urging its European allies to increase their military preparations. Considerable danger is presented by NATO plans calling for deployment of new intermediate-range nuclear missile weapons in Western Europe. The United States is also pulling Japan, where militarism is raising its head increasingly higher, into the orbit of its aggressive policy. Washington is stepping up its attempts to utilize Beijing's anti-Soviet policy in the struggle against peace and socialism.

U.S. imperialism, claiming the role of world policeman, is brazenly declaring vast regions and even continents to be a sphere of U.S. "vital interests." The United States is expanding its network of military bases on foreign soil and is hastily putting together "rapidly deployment forces" totaling thousands of men -- an instrument of aggression and terror.

When we speak of the military preparations of imperialism, we are also talking about stepped-up activities by the intelligence services of the capitalist countries, which seek to do detriment to the defense capabilities and interests of the Soviet State and the entire socialist community. The class enemy is extensively utilizing both the old, traditional means of espionage and the most modern techniques. The enemy is today placing high hopes on satellites, radar and radiotechnical equipment, laser devices, infrared equipment, sound recording gear and means of secret writing.

Today the terms "vigilance" and "combat readiness" have merged. Commanders, political agencies, party and Komsomol organizations work day by day to form in servicemen a heightened sense of vigilance and the ability to guard military and state secrets and to recognize the crafty schemes of our class enemies. The task of developing in Soviet servicemen an inner preparedness to rise to the defense of the homeland and socialism at any time, to withstand any ordeals and to defeat the foe is being successfully accomplished in the general system of political and military indoctrination.

Increased demands on combat readiness of the Soviet Army and Navy are also dictated by the character and specific features of a potential war. We cannot ignore such dangerous modes of imperialist initiation of aggression as treachery and surprise, which in the past frequently gave significant advantages to the attacking side. Today they have assumed particular significance, inasmuch as new weapons and combat equipment have been developed, the force of strategic first strikes has increased, and the modes of delivering them have changed.

The Communist Party of the Soviet Union has unwaveringly followed and continues to follow Lenin's instructions to be ever on guard against the intrigues of imperialism and constantly to maintain the Armed Forces in an elevated state of combat readiness. The army and navy have become unrecognizably transformed, together with the entire country, in the years which have passed since the Great Patriotic War.

Through the will of the party and the labor of the people, the Soviet Armed Forces have all the necessary means at their disposal in order to meet an enemy attack fully armed and to carry out their assigned missions in a worthy manner. But the fact of being equipped, no matter how high the degree, cannot per se guarantee victory. It is essential to learn to utilize this equipment with complete knowledgeability.

A most important task in the system of increasing army and navy combat readiness is to gain mastery of their weapons, to raise the level of technical knowledgeability of personnel, and to seek ways to achieve more effective utilization of the capabilities of modern weapons. To gain minutes and seconds, on which success in battle may depend, one must be able to gain one's bearings quickly, to make decisions in a prompt and expeditious manner, thoroughly to understand and precisely to execute missions in any and all conditions. Such skills are developed in the course of continuous combat training. In each military collective it is important to create an atmosphere of intolerance toward inefficient expenditure of time and toward instances of unnecessary relaxation of demands and unnecessary simplifications at training exercises. Commanders, political agencies, party and Komsomol organizations are called upon to develop in servicemen, especially in young personnel, love for the weapons and equipment they are called upon to operate.

A state of combat readiness is not something permanent, established once and for all: the situation changes, combat equipment evolves, the actions of the potential adversary are improved, etc. The party teaches servicemen to conduct a constant, innovative search, to find new and more effective work forms and methods, and to campaign for increased combat readiness. And a particularly important role in this is played by field and fleet exercises -- the highest form of preparation of units and warships to conduct combat operations. Firm knowledge of the fundamentals of tactics, innovative application in battle of the points taught in the training manuals, independence, initiative and an indomitable striving to achieve victory with fewer forces, and the ability to deliver accurate fire -- all these combat qualities have been displayed in full measure by the participants in various exercises, including "Zapad-81" [West-81].

Ensuring continuous combat readiness is the sacred obligation of commanders, political workers, and all Armed Forces personnel. And it is achieved through daily, selfless military labor. "A continuously high state of combat readiness," states USSR Minister of Defense Marsu D. F. Ustinov, member of the CPSU Central Committee Politburo, "is secured by persistent military labor and depends in large measure on the efforts of each serviceman and on the level of field, air and sea proficiency of troops and fleet forces. It is made up of large and small military activities, is hammered out daily in intensive work, on alert duty, in daily training activities -- in the classroom and on the range, on cruises and in mock air combat. And the more effective combat training is, the better its quality and results, the higher the level of Armed Forces combat readiness will be."

Combat readiness is the principal criterion which should guide one when evaluating achieved results. And if, let us say, a subunit which is rated excellent and which contains a large number of high proficiency-rated specialists performs in a passive manner at training exercises and fails to utilize in full measure the capabilities of its weapons and equipment, it is appropriate to ask the following question: what is the value of high marks, and what justifies the generosity with which they were given? We cannot ignore the endeavor on the part of certain leader personnel to pass off the desired as the achieved, to conceal deficiencies with good numbers in reports.

Continuous high combat readiness of units and warships is a kind of mirror, which reflects the abilities of commanders, smoothness of staff operations, initiative and results by political workers, party and Komsomol activists. There is a need of deep foresight, scientific prediction of the possible course of combat operations, and thorough calculation of anticipated results. Questions pertaining to promptness in decision-making and reducing to the greatest possible extent the time required for planning, allocation of tasks and organization of task execution are becoming quite acute.

It is very obvious that to achieve skilled command and control of troops and fleet forces it is essential to possess thorough knowledge of military affairs, the processes and phenomena which characterize their development. It is inconceivable successfully to achieve new high points in improving combat readiness without a precise understanding of the character of military preparations by aggressive blocs and the views of the imperialist military on the conduct of warfare.

An indispensable component of combat readiness is firm military discipline. Wherever commanders, staffs, political agencies and party organizations perform purposeful political indoctrination and organizational work to strengthen order and organization, personnel study hard, perform service in a responsible manner, and are ready at all times to execute combat orders.

Skillful organization of socialist competition fosters an improved level of combat proficiency. Just as in the country as a whole, it is a powerful means of development of people's social activeness. Socialist competition is in full swing in the army and navy to honor in a worthy manner the 60th anniversary of the Union of Soviet Socialist Republics, under the slogan "Reliably defend the peaceful labor of the Soviet people!"

A distinctive feature of the army and navy is enhancement of the role and increased responsibility of primary party organizations for resolving problems pertaining to combat readiness. They are active implementers of CPSU policy in the Armed Forces. Through party organizations our party is bound by close bonds with the servicemen, indoctrinates and unifies them, organizes and mobilizes them for successfully accomplishing combat training tasks. Communists are initiators of the campaign for improved effectiveness and quality of personnel training and indoctrination. Their vanguard role and sociopolitical activeness are continuously growing. Today 60 percent of CPSU full members and probationary members are rated excellent in combat and political training, while two thirds are highly-skilled specialists. The 6th Armed Forces Conference of Secretaries of Primary Party Organizations helped strengthen the role of Communists in further improving combat readiness and maintaining firm observance of regulations in units and warships.

Aggressive efforts by commanders and political agencies pertaining to explanation and study of the documents of the 26th CPSU Congress and the May (1982) CPSU Central Committee Plenum in all forms of political training exert profound influence on army and navy ideological affairs. They actively influence the forming of a high degree of political awareness in people and an understanding by Communists and all Soviet Armed Forces personnel of the

party congress conclusions on the present situation in the world, on the increased military danger and the need continuously to increase combat readiness.

Focused at the center of attention of commanders, political agencies, and party organizations are questions connected with propaganda of the historical superiority and achievements of socialism in solving sociopolitical and economic problems. Considerable importance is attached to dissemination of Leninist ideas on defense of the socialist homeland and the demands of the USSR Constitution on each and every citizen in the area of strengthening defense. An important place is assigned to explaining the complex dialectics of war and peace in the contemporary era, the reasons for the increased aggressiveness of imperialism, and the conclusions of the party congress on the historical function of the Soviet Armed Forces.

The entire content, the forms and methods of ideological work are directed toward indoctrinating servicemen in a spirit of Soviet patriotism and proletarian internationalism, as well as conviction as to the rightness and invincibility of socialism. There is taking place in the army and navy, under the beneficent influence of the decisions of the 26th CPSU Congress and party Central Committee decrees, a process of enrichment of the content of ideological work and improvement in its performance results. Party organizations, carrying out the demands of the CPSU Central Committee decree entitled "On Further Improvements of Ideological and Political Indoctrination Work," seek to form in personnel a high level of ideological conviction, loyalty to military duty, and constant readiness to defend the homeland and the achievements of socialism.

The men of the army and navy see as their patriotic duty reliably defending the socialist homeland and being in a continuous state of combat readiness guaranteeing an immediate rebuff to the aggressor. As was stressed by the minister of defense in his address at the 6th Armed Forces Conference of Secretaries of Primary Party Organizations, an analysis of Armed Forces combat training performance results in the last training year indicates that they improved their level of proficiency and combat readiness and are capable of successfully carrying out any and all missions pertaining to defending the homeland. A continuous high state of combat readiness is a call of the times. It makes the USSR Armed Forces a reliable guarantor of our country's security and world peace.

Maintaining constant vigilance and a high level of combat readiness constitutes a worthy contribution by Soviet servicemen toward strengthening the might of our beloved homeland on the eve of a glorious day of celebration -- the 60th anniversary of establishment of the USSR.

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3024

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## PERCEPTIONS, VIEWS, COMMENTS

### COMMENTS ON U.S. PLANS AND ACTIVITIES IN THE PACIFIC

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press, 7 Jul 82) pp 7-11

[Article, published under the heading "General Military Problems," by Col B. Peresvetov: "U.S. Intrigues in the Pacific Ocean Zone"; passages highlighted by use of double-spaced words enclosed in slantlines]

[Text] The global expansionist aspirations of the U.S. military received a new impetus with the accession of the Reagan Administration to power. The sharp increase in the aggressiveness of U.S. imperialism noted in the documents of the 26th CPSU Congress finds expression in the U.S. course of policy toward undisguised use of force in international relations and in an unprecedented escalation of the arms race.

In a book entitled "Grand Strategy for the 1980's," U.S. strategist General T. Milton, analyzing the state of alliance relations with the Western European nations, noted that in the near future it is essential "to reach new agreements and secure assistance to the United States on the part of new forces beyond the boundaries of the NATO zone." In making this statement, Milton of course does not propose replacing "Atlantism" with any new orientation, but has in mind the application of additional efforts to mobilize both existing and potential allies in areas the significance of which for the United States had increased by the beginning of the 1980's.

Washington includes first and foremost among these areas the vast Pacific Ocean zone (in this article we shall be discussing the countries of the Pacific Ocean basin, other than Latin America). The total population of the capitalist countries of the region is approximately 750 million, or 17 percent of the world population; total gross domestic product exceeds 40 percent of the counterpart indicator for all capitalist countries. A factor of importance is the rapid growth of U.S. trade volume with countries situated in this zone. From 1970 through 1978 it increased from 18.7 billion to 76.6 billion dollars, exceeding for the first time in U.S. history trade with Western Europe. To this we should add that considerable natural resources exist on the seabed of the Pacific Ocean and on the territories of the countries of this region. Promising oil and gas deposits have been discovered here, which is particularly important today, when the Near East, in the opinion of Western experts, is ceasing to be a reliable source of energy raw materials. The growth dynamics

of proved oil reserves in the countries of the Pacific Ocean basin, excluding the United States (as a percentage of the capitalist world's reserves), are as follows: 1970 -- 4 percent; 1977 -- 7 percent; 1979 -- 13 percent. A similar situation is observed as regards natural gas reserves. In addition, almost all principal mineral raw materials are to be found in the Pacific region (bauxite, manganese, titanium, nickel, tin, tungsten, molybdenum, silver, many rare-earth metals), which the United States must continuously import.

But nevertheless a central position in Washington's plans for the Pacific Ocean zone, in spite of the importance of economic factors, is taken up by military-political considerations. The Reagan Administration, pursuing a policy of global contest with the Soviet Union, is counting heavily on further strengthening of the U.S. military-strategic position in this region. Sharp activation of White House actions in the diplomatic, military, and economic areas enables Western experts to conclude that the United States has returned "to the Asian stage" and is conducting an offensive with the aid of the so-called "Reagan doctrine." Its principal objective is to bring an end to the "Vietnam syndrome" and reestablish U.S. leadership in this region, under the banner of anti-Sovietism. "The United States," assured former Secretary of State A. Haig, "will strengthen its military presence in the Pacific...."

Special attention in the militarist efforts of U.S. imperialism is focused on /qualitative and quantitative buildup of the U.S. force grouping./ In the post-war years the Pentagon established an extensive network of principal military bases in a number of Pacific nations. Presently there are 85 bases, including 40 in South Korea, 32 in Japan, 11 in the Philippines, and two in Australia. Not content with this, U.S. strategists are making efforts to achieve a further buildup of the basing system. In July 1981 Bangor Naval Base on the U.S. Pacific Coast became operational, a base for "Ohio" class nuclear-powered missile-armed submarines.

Micronesia occupies an important place in U.S. plans. As we know, its "development" commenced long ago. Bikini, Eniwetok, and Kwajalein atolls were turned into nuclear weapon and ballistic missile test ranges. A large military complex was built in the Palau island group, including a naval base, an airfield, and ranges. Military installations are scheduled for construction, including air force and naval bases, nuclear and chemical weapon storage facilities in the Marianas and Carolines. Contrary to the will of Micronesia's indigenous population, the Reagan Administration is endeavoring by means of political machinations to guarantee conditions for unhindered future utilization of this island territory for U.S. strategic purposes.

Establishing an elaborate network of bases in the Western and Central Pacific, the Pentagon stationed here a part of its strategic offensive forces and a general-purpose force grouping which is second in significance to that in Western Europe. According to figures in the foreign press, U.S. naval forces in the Pacific totaled 200 warships, more than 1500 aircraft, and more than 300,000 men. When they were joined in October 1981 by the SSBN "Ohio," armed with Trident I missiles, "the strategic structure of the Pacific Fleet became even stronger."

Plans are being carried out to achieve further improvement in the armament of warships in the general-purpose forces by arming them with Harpoon antiship

missiles. Future plans call for arming B-52 strategic bombers, surface warships and nuclear submarines with cruise missiles. These measures by the U.S. Administration are a component part of the program, specified for the 1980's, radically to modernize the armed forces and to increase their strategic and tactical mobility.

Considered to be a no less important aspect of U.S. military-political activities in the Pacific are U.S. /efforts to activate in every possible way the military role of its allies/ -- Japan, South Korea, Australia, and New Zealand. These intentions of Washington were clearly manifested in the course of the RIMPAC 82 and TEAM SPIRIT 82 exercises.

As was noted by the Japanese press, the RIMPAC 82 exercise, which included the participation of U.S., Canadian, Australian, New Zealand and Japanese naval forces (a total of 60 ships, 120 aircraft, and 29,000 personnel), significantly surpassed in scale and duration similar exercises of past years. One specific feature was the fact that, for the first time, 6000 U.S. Marines took part. This fact, according to the newspaper MAINICHI, gave the maneuvers "a clearly marked aggressive character." Rehearsal of teamwork and coordination between the U.S. Navy and the navies of America's Pacific allies is assessed in the foreign press as a Pentagon endeavor to assign them the role of subordinates in executing Washington's strategic plans.

The TEAM SPIRIT 82 joint U.S.-South Korean exercise, in the opinion of foreign experts, was highly indicative in another respect. Seeking to support the aggressive designs of the South Korean military, Washington has done everything it can to convince the puppet regime of the reliability of its alliance obligations. Precisely for this reason the exercise was accompanied by massive redeployment of U.S. troops and arms to the Korean Peninsula from military bases in Japan, the Philippines, Hawaii, and the continental United States. Secretary of Defense C. Weinberger, who visited South Korea during this time, assured the allies that the United States intended to continue in the future strengthening its military power in the Pacific, and also reconfirmed Washington's promise to continue military assistance to the South Koreans.

Japan is increasingly more clearly emerging as the number one U.S. partner in the Far East. The efforts which the Reagan Administration has made to draw Japan into the orbit of U.S. military-strategic interests are now bearing fruit. The Hong Kong journal FAR EASTERN ECONOMIC REVIEW, summing up the results of the recently inconsistent chronicle of U.S.-Japanese relations, summarized: "The die has been cast: the inevitable process of rearmament of Japan has begun." Taking refuge behind the myth of a "Soviet threat," militant circles in the United States and in Japan are attempting to speed up that country's militarization and to revise the peace constitution, in particular Article 9, which prohibits the establishment of armed forces. Japan is presently number eight in the world in expenditures for military purposes: in 1982 the Japan Defense Agency received appropriations totaling 2.6 trillion yen, or 7.75 percent more than in the preceding year.

Building up its military potential, Japan is at the same time expanding and deepening its militarist collaboration with the United States. At the beginning of 1982, at a meeting of the U.S.-Japanese Consultative Committee on

Security, another step was taken toward what Washington seeks to achieve. The two parties agreed to commence a study of possibilities of joint actions in case of an "emergency situation" in the Far East. Commenting on this decision, the Kyodo Tsushin Agency noted that in actual fact a qualitatively new level of collaboration had been reached, going beyond the limits of the "security treaty," since the sphere of joint actions by the armed forces of both nations now takes in not only Japanese territory but also areas far beyond Japan's boundaries. The Pentagon is pushing the development of Japan's naval forces precisely in this direction, so that they can fight in areas up to 1000 miles from shore.

The foreign press has repeatedly reported the presence of U.S. tactical nuclear weapons on Japanese soil, and Japan's ports have always been open to U.S. nuclear submarines. Washington strategists would not at all mind turning this country as well, following Western Europe, into a proving ground for the conduct of "limited" nuclear war. Limited, of course, for the United States. As regards Japan, according to the scenario dreamed up at the Pentagon, it has been assigned the role of hostage, which is supposed to accept a "diverting blow." But what is Japan's response? While declaring in words its adherence to the idea of nuclear disarmament, the Japanese Government at the same time refuses to give the force of law to the three nonnuclear principles -- not to import, not to produce, and not to possess nuclear weapons.

Under U.S. pressure, there has recently occurred enlivened relations between the two countries in the area of military-technical cooperation. As was stated at the beginning of 1982 by Minister of International Trade and Industry S. Abe, the banning of arms exports shall henceforth not apply to the development of weapons and military equipment on a joint basis with other countries. S. Ito, director general of the Japan Defense Agency, proposed a Japanese-U.S. agreement for the development of new weapons. The newspaper WASHINGTON POST reports that the Americans are showing considerable interest in Japanese-developed computers and lasers, which could find application in developing "weapons of the future."

Washington is using every possible means of forcing Tokyo to accept U.S. demands that it sharply increase military efforts, including an increase in military expenditures by a factor of 2-3, expansion of arms purchases abroad, and offering the United States advanced technology which can be utilized for military purposes. The Americans make it clear thereby that agreement to their demands will favorably influence decisions in resolving bilateral trade-economic problems.

Strengthening of militarist ties with Japan, South Korea, Australia, and New Zealand no longer satisfies the U.S. military. As is reported by the foreign press, a search is in progress for ways /to put together an extensive military-political organization/, which would be called "Pacific Community." The United States would like to unite under its aegis, in addition to Japan, Canada, Australia, and New Zealand, the members of ASEAN (Indonesia, the Philippines, Thailand, Malaysia, Singapore), as well as South Korea. The initiators of this plan do not conceal their anti-Soviet aims and endeavors at any cost to make

the nonaligned ASEAN member nations accomplices in imperialist adventures, and in particular to turn them into a "defense outpost in the Pacific."

The ASEAN members, in the estimate of foreign experts, on the whole are very skeptical toward the idea of joining a "community," in spite of the "benefits" they are being promised. The United States cannot ignore these attitudes, and therefore, remaining in the background, is pushing Japan to the forefront as implementer of the concept of a "Pacific community," and is also enlisting its most faithful allies in the region -- Australia and New Zealand -- in implementing these schemes. There are quite genuine reasons for the cool attitude toward this initiative by the majority of ASEAN member countries. Behind the vague wording of the "community's" aims and tasks, one can clearly see the U.S. endeavor to create a broad military-political alliance serving the interests of international reaction, and at the same time to hammer together an exclusive economic grouping which would further the interests of U.S. and Japanese imperialism.

In spite of the difficulties which have arisen, Washington is not about to abandon its plans. The principal means with the aid of which it is attempting to apply pressure to the ASEAN countries is a deliberately provoked hysteria over so-called "Soviet expansion" and frightening the nations of Southeast Asia with the "threat" on the part of Vietnam. As a first step, everything possible is being done to whip up escalation of the arms race in these countries. According to a survey conducted by the DEPT News Service in Manila, military expenditures of the ASEAN members have sharply increased in recent years and comprised as much as 27 percent of the national budgets, substantially exceeding appropriations for health and education. In the latter half of the 1970's U.S. military assistance for these countries exceeded 800 million dollars, that is, was more than double that of the preceding 5-year period. Since 1977 the ASEAN member countries have obtained from the United States 2.48 billion dollars worth of arms, including F-5E fighters and A-4 attack aircraft, M48 tanks, artillery pieces, helicopters, small arms and ammunition.

Endeavoring to prevent rapprochement by the "five" with the progressive nations of Indochina, the United States is aggressively exploiting the so-called "Kampuchean issue" and is inciting intervention into the People's Republic of Kampuchea by Pol Pot bands based in Thailand.

China is aspiring to the role of U.S. partner in the effort to destabilize the situation in this "hot spot" of the world. Beijing leaders are stepping up pressure on the ASEAN countries, and on Thailand in particular, to establish a new front of struggle against Vietnam and Kampuchea. They support maintaining a U.S. military presence in the Far East and Southeast Asia, and they support concrete steps taken by the Washington Administration which are aimed at escalating the arms race and drawing U.S. allies into it. As was noted by the Vietnam newspaper NHAN XANH, the Chinese leaders, engaged in a flirtation with Washington, are structuring their policy toward Taiwan to accommodate the interests of and prospects for U.S. expansion. In spite of the smoke screens put up by Beijing from time to time in the form of declarations on the Taiwan question, the White House has not acknowledged PRC sovereignty over this island.

The Reagan Administration, the foreign press reports, is not at all disturbed by noisy Chinese "protests" over U.S. arms deliveries to Taipei, the annual volume of which exceeds 500 million dollars. The United States has viewed and continues to view China as an instrument to be used against the Soviet Union and revolutionary liberation movements. It was precisely for this reason that the U.S. Government decided to end restrictions to the sale of offensive arms to the PRC and to step up military cooperation with China; the two countries are already arranging an exchange of intelligence data. The shortsighted policy of the Chinese leaders and their endeavor to pursue a strategic policy which is parallel to that of the United States, in the estimate of foreign experts, gives Washington every reason to view China as an accomplice in its aggressive policy in the Pacific region.

The buildup of U.S. military presence and stepped-up U.S. military-political activities in the Pacific, Washington's attempts to consolidate NATO, ANZUS, and the U.S.-Japanese "security treaty" into a single chain and to join the ASEAN member countries to them -- all these actions are fraught with serious consequences not only for the Pacific region but for the entire world. The alarm felt by hundreds of millions of people over the growing nuclear threat has found expression in actions by members of the Australian peace movement and by Japanese writers. Responses by Comrade L. I. Brezhnev to representatives of the people of these countries stress the peace-loving position of the Soviet Union regarding the issues of disarmament and peace. The new Soviet initiatives presented in addresses by Comrade L. I. Brezhnev at the 17th USSR Trade Union Congress and at official ceremonies in Tashkent pertain not only to the common interests of the entire planet but also address specific regional problems. In particular, the question of extending confidence-building measures to the seas and oceans is important for the Pacific region. It is a call of the times to make them free of military preparations and of deployment of death-dealing weapons.

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3024

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## PERCEPTIONS, VIEWS, COMMENTS

### COMMENTS ON NATO EXERCISES IN WEST GERMANY

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press 7 Jul 82) pp 11-16

[Article, published under the heading "General Military Problems," by Maj Gen S. Ivlev: "Combined Bundeswehr Exercise 'Scharfe Klinge'"]

[Text] The military-political leaders of the aggressive NATO bloc, and particularly the United States, whipping up an anti-Soviet hysteria and escalating international tension, are intensifying preparations for war in all areas. The timetable for accomplishing the long-range NATO military program adopted in 1978 is being substantially shortened. It is also planned sharply to increase by the mid-1980's the combat and mobilization capabilities of the bloc's military forces. In addition to equipping troops with new weapons and combat equipment, their organizational structure is being improved, and the most expedient modes of conduct of aggressive combat actions in the initial operations of a future war are being sought.

The scope, scale and number of large exercises (including strategic) and maneuvers of NATO Joint Forces and national formations of the bloc member countries constitute graphic confirmation of the above. In the 1960's, for example, NATO command authorities held one "Autumn" type command and staff exercise in even years, while in the 1970's the picture changed rapidly. Every year "Autumn Forge" fall maneuvers are held on a unified operational-strategic background, while in uneven years a "Winter" type strategic command and staff exercise is held. Plans for preparing for and conducting the first operations of the initial period of a war with the employment of conventional, chemical, and nuclear weapons are comprehensively rehearsed in the course of such large-scale operational-strategic activities.

Nor was 1981 an exception. The command and staff exercise (CSX) "Winter 81" was held in March, while the series of "Autumn Forge 81" fall maneuvers was held in September-November, a series which included up to 30 exercises of various scale, conducted over a vast area -- from Norway to Turkey -- in the immediate vicinity of the borders of the socialist nations. Participating entities included NATO Joint Forces commands and staffs, as well as a large number of combined units and units (almost 300,000 men); participating equipment included more than 15,000 tanks, armored personnel carriers and other fighting vehicles, 2000 aircraft, and approximately 300 warships of the principal types.

As is noted in the Western press, the "Scharfe Klinge" [Sharp Blade] two-sided combined exercise of the FRG 2nd Army Corps was held within the framework of these maneuvers; this exercise included the participation, in addition to West German ground and air forces, units and subunits of U.S. and Canadian forces. It ran from 10 through 18 September 1981 in Southern Germany (Baden-Wuerttemberg and Bavaria).

The exercise covered the following area: western boundary -- Rhine River; northern boundary -- Ulm-Stuttgart-Karlsruhe Autobahn; eastern boundary -- Iller River; southern boundary -- Lake Constance. There are many natural obstacles in this area, including water obstacles. In the western part of the area rises the mountainous Black Forest, with elevations up to 1000 meters, a densely forested area, with the Swabian Jura rising in the east; the Neckar and Nagold rivers flow through the area, and the terrain is densely forested. Highlands and valleys lie between the Neckar and Danube rivers, and therefore troop operations are possible only along certain axes.

According to information in the foreign press, the following actual forces took part in the exercise: from the FRG -- the 4th Motorized Infantry, 10th Panzer and 1st Airborne divisions, corps units of the 2nd Army Corps, and the 17th Heitmatschutz Command (55th Brigade) (up to 5000 reservists); U.S. forces -- the 1st Brigade, 1st Mechanized Division; Canadian forces -- 4th Motorized Infantry Brigade (Figure 1) [not reproduced]. Air support was provided by air forces of the FRG and other bloc member countries in the Central European Theater. A total of approximately 48,000 men took part in the exercise (including 3500 U.S. and Canadian personnel respectively), employing approximately 10,000 wheeled and 3000 tracked vehicles, including 600 tanks, up to 220 artillery pieces and rocket launchers, and more than 500 fixed-wing and rotary-wing aircraft (rehearsing missions for the most part within the framework of the "Cold Fire 81" exercise). Forces were under the immediate direction of the commander of the 2nd Army Corps, Lieutenant General Glantz. Approximately 4000 personnel were required to staff and umpire the exercise. In addition, more than 500 persons were enlisted to service foreign military representatives and the press.

In order to enhance the role and prestige of the Bundeswehr in the North Atlantic Alliance, a large group of high officials observed the exercise, including NATO Secretary General Luns, U.S. General Rogers, supreme commander, NATO Joint Forces, Europe, and other top-echelon bloc national and joint forces officials, as well as FRG President Carstens and Minister of Defense Apel.

As was reported in the foreign press, the main objective of the exercise was to test the combat capabilities of the 2nd Army Corps (taking into consideration the reorganization of West Germany's ground forces which was taking place at that time) during the conduct of joint operations with the air forces and troops of Germany's NATO allies in operations in the initial period of a war in the Central European Theater -- the principal theater in Western Europe.

According to a statement by Bundeswehr command authorities, the exercise was two-sided, which enabled the troops to obtain experience in organizing for and conducting combat actions both in the offense and defense, faced with a realistically acting "aggressor." In the course of the exercise, principal attention was focused on working on the following items: refining plans and testing the combat readiness of corps combined units and units when shifting from a peacetime to a war footing; mobilization of reservists to bring regular combined units and units up to wartime strength and deployment of the Heimatschutz 55th Brigade; testing of march training and movement of troops into designated operations areas; conduct of delaying and offensive actions, involving river-crossing operations, by Bundeswehr new-organization combined units; teamwork and coordination between advancing units and airborne assault forces, as well as ground forces as a whole with tactical aviation, and rehearsal of joint missions by staffs of different national affiliations; air defense, logistic support, and secure troop control.

Foreign military experts believe that approximately a year was required to prepare for this activity. During that period, in addition to detailed preparation of the requisite documents, special tactical exercises, command and staff exercises, drills and training conferences were held. In June 1981, for example, the 4th Motorized Infantry Division held a command and staff exercise, in July the 12th Panzer Brigade of the 4th Motorized Infantry Division (West German) held a tactical exercise, while in September the 4th Motorized Infantry Brigade (Canadian) and the 10th Motorized Infantry Brigade, 4th Motorized Infantry Division (West German) held a tactical exercise. At the beginning of September training conferences were held with leader personnel and umpires. Special attention was devoted to individual preparation of called-up reserves and coordination of newly formed subunits.

A fictitious border, running along a line Wiesloch-Pforzheim-Blumenfeld (Figure 2) [not reproduced], was selected to conduct mock combat in the course of the exercise. The Red Force ("aggressor") was disposed west of the "border," and the Blue Force (Western nations) -- east of it. And regardless of command authority efforts to make the commencement of Bundeswehr combat operations at this exercise look like defensive actions, the attack was launched from west to east.

An unoriginal plan formed the basis of the "Scharfe Klinge" exercise, as was the case with others in the "Autumn Forge 81" series of maneuvers. The Red Force heightened tensions, incited disturbances along the border, hastily concentrated its troops in the frontier areas, and proceeded to exert aggressive influence on individual countries on the Blue side, with the objective of forcing them to take a neutral position. Concentrating large force groupings under the pretext of field exercises, they "crossed the border" on the heels of airstrikes and, mounting an offensive operation, sought to capture the forward positions of the Blue Force, to rout the forward-echelon main forces and to create conditions for penetrating to operational depth.

The Blue Force, convinced that war was inevitable, moved forward units toward the border and, using them as a covering force, swiftly placed its forces from a peacetime to a war footing. Subsequently the Blue Force hastily moved forces into

designated operations areas, sought to prevent penetration of the forward defensive line with aggressive defensive actions, and subsequently, mounting counterthrusts with support echelons and reserves, was supposed to defeat the advancing Red Force and reestablish the situation on the "border." The main objective of the exercise, as noted by the Western press, was to enable Bundeswehr combined units, working in coordination with other NATO bloc troops, to rehearse plans for organization and conduct both of offensive and defensive operations in conditions approximating actual combat.

The Red Force supposedly consisted of the 2nd Army, containing 5 divisions and an independent tank brigade, with 4 divisions in the forward echelon; forces actually comprised the 10th Panzer Division and the 4th Motorized Infantry Brigade. The Blue Force, according to the scenario, consisted of the 2nd Army Corps, containing 4 divisions (3 West German and 1 American). Actual forces included the 4th Motorized Infantry Division (minus a brigade), the 25th Airborne Brigade, the Heimatschutz 55th Brigade, and the 1st Brigade of the 1st Mechanized Division.

The Bundeswehr panzer (motorized infantry) brigades contained 4 battalions and an artillery battalion each. The 1st Brigade (U.S) contained 2 tank and motorized infantry battalions each, artillery units (Figure 3) [not reproduced], and support subunits. As was noted in the Western press, within 24 hours it was airlifted ("Reforger 13" exercise) from Kansas to Frankfurt/Main (FRG). This operation took 67 hours, including issue of heavy equipment from U.S. storage facilities in West Germany to personnel of the 1st Brigade, and travel to the exercise area.

March proficiency was tested in the units of the 4th Motorized Infantry Division during advance and deployment of troops in the assembly areas. Under conditions of continuous pressure by the "aggressor" air threat (actually combat aircraft of the air forces of the FRG, United States, and Canada), the division executed a 400 kilometer combined-mode march along two routes, including a crossing of the Danube River. As was emphasized in the Western press, the main difficulty involved offloading heavy equipment from railcars and moving it across the river by three temporary bridges (a total of more than 3000 wheeled and tracked vehicles were moved across). It was noted that personnel displayed a fairly high level of march proficiency. The combined unit required not more than 60 hours from commencement of loading onto railcars to completion of deployment in the assembly area (including offloading and river crossing). Columns of wheeled trucks traveled on main highways at speeds up to 70 km/h, and 40-45 km/h on other roads. An engineer battalion, a helicopter section, and corps subordination rear services support subunits were enlisted (in addition to organic means) to move the 4th Motorized Infantry Division across the river. Security at the crossing sites was provided by subunits and units of the Territorial Forces 6th Military District. Other combined units participating in the exercise also traveled by combined mode: wheeled vehicles traveled under their own power, and tracked vehicles were carried by rail.

The troops moved into the exercise assembly areas in the period 10-13 September, and the active phase of the exercise, which consisted of two stages, commenced

on the morning of the following day. During the first stage (14-15 September) the Red Force rehearsed offensive actions involving crossing the Neckar River, while the Blue Force conducted delaying and defensive actions in the covering-force area as well as in the forward defensive positions.

On the morning of 14 September the Red Force, following massive artillery bombardment and airstrikes, advanced across the "border" and launched an aggressive attack, planning a swift breakthrough of the security area and penetration of the "enemy's" forward defensive line without a halt. In order to maintain a rapid rate of advance, they extensively employed tactical airborne assaults and maneuvered tactical combat teams and fire. During the fighting in the forward security area, forward detachments separated from the combined units, while the main forces advanced in approach march formations at a rate of up to 30 km per day. Thanks to close teamwork and coordination with air, by evening on 14 September the Red Force had succeeded in crossing the Neckar at certain points and in seizing a bridgehead. The greatest success was achieved by the 10th Panzer Division which, with aggressive air support (115 sorties were flown that day in support of the division), succeeded in capturing the defended areas of the forward-echelon brigades. In other sectors the Red Force, encountering stubborn resistance, was advancing at a slower pace and taking heavy losses. During the next 24 hours the Red Force achieved the greatest success on its flanks, where it was able to penetrate the "enemy's" dispositions to the entire depth of defense of the forward-echelon divisions. But the Red Force now lacked sufficient reserves for offensive exploitation.

The 2nd Army Corps (Blue) was defending in a zone extending approximately 150 km in frontage and depth. It was battle-disposed in a single echelon. For the first time at the field exercises, two brigades were assigned to corps reserve: the Heimatschutz 55th, and the 25th Airborne. During the first stage the Blue Force pursued the aim of wearing down the Red Force attack-echelon combined units with aggressive defensive actions and, if they succeeded in breaking through in individual sectors, of preventing further Red Force advance by mounting counterattacks by division and corps reserves.

As was noted in the Western press, the Blue Force troops fought aggressively in the security area and in defending the forward defensive line, extensively employing minefields and, on likely avenues of tank approach, BO-105P antitank helicopters, Huey Cobra gunships, and A-10 attack aircraft. The army corps command authorities sought to maintain close coordination with tactical air. For example, approximately 120 sorties were flown on 15 September in support of the defense of the 4th Motorized Infantry Division; as many as 30 percent of these were close air support missions, and more than 50 percent were missions to seal off the battle area. The defending troops skillfully utilized the difficult terrain and the existence of large water obstacles (the Nagold and Neckar rivers) to organize a stubborn defense, and took advantage of terrain irregularities for concealed maneuver of subunits to threatened sectors and to deliver tactical assault forces by helicopter. In the estimate of Western military experts, the Blue Force, although in some sectors it retreated 50 kilometers in 2 days, at the same time demonstrated skilled employment of weapons, combat equipment, and modes of conduct of a determined defense.

The following items were rehearsed in the second stage (16-18 September): the Red Force -- shift to the defense and repelling a counterthrust; the Blue Force -- mounting a counterthrust and shifting to the attack.

The Red Force, after redispersing its forces, on the morning of 16 September undertook an attempt to resume the offensive, with the objective of crushing the Blue reserves and creating conditions for encircling and defeating in detail the army corps main forces. The greatest success was achieved on the right flank. The Blue Force command authorities, however, promptly discovered the "aggressor's" intentions (shifting the main axis of advance) and, to halt his further advance, helilifted to the most heavily-threatened sector of the front by CH-53 and UH-1D helicopters the 25th Airborne Brigade which, with aggressive air support and working in coordination with antitank helicopters, halted the Red Force advance. That afternoon its advance was halted in all sectors, and the troops received orders to shift to the defense. In the course of the advance the Red Force combined units as a rule maintained a 2-echelon combat formation. The tank brigades operated primarily in the first echelon.

On the morning of the following day the Blue Force, defending in certain sectors, launched a counterthrust on an axis running Heidenheim-Hechingen. For this a tactical airborne assault force, consisting of a reinforced battalion of the Heimatschutz 55th Brigade, which was airlifted by 2 corps regiments of transport helicopters, was delivered to the vicinity of Reitlingen.

In the course of the day (18 September) the Red Force, fighting determined defensive actions, endeavored to prevent the enemy from reaching operational depth. The defenders were unsuccessful, however, and by evening the Blue Force had reestablished the situation along the border. The active phase of the "Scharfe Klinge" exercise ended with this.

Noting the steadily increasing combat power of the Bundeswehr, the then inspector general of the ground forces, Lieutenant General Peppel, particularly emphasized that the FRG's ground forces, in spite of the recent reorganization, had accomplished their assigned missions. The greatest praise, in his words, was deserved by the young replacements and reservists. The 55th Brigade, formed on the base of the 17th Heimatschutz Command, had demonstrated the ability to perform combat missions together with regular troops and to operate as an element of NATO forces. In Peppel's opinion, teamwork and coordination between combined units can be developed only in the course of large-scale exercises.

As was reported in the Western press, during the exercise Bundeswehr command authorities devoted considerable attention to working on coordination between ground troops, tactical and army aviation (approximately 9000 air forces personnel were assigned to the exercise). Aircraft of various types (F-4E, RF-4E, F-104G and, for the first time, the 49th squadron, which is flying the Alpha Jet light ground-attack aircraft) were employed in the close air support role in groups of 8-14 aircraft. They operated at heights ranging from 90 to 300 meters. From 100 to 120 sorties per day were flown in support of each forward-echelon division. Tactical air, jointly with other forces and equipment, also performed missions of gaining and holding air superiority, sealing off the battle area, and conduct of air reconnaissance.

Army aviation participation involved for the most part BO-105P antitank helicopters and Huey Cobra gunships. The forward-echelon brigades were reinforced by a section of antitank helicopters (7-8 units), which would engage armored targets at ranges of 2500-3000 meters. Observation and liaison helicopters were enlisted for reconnaissance and target designation. In the estimate of Western experts, on the average one antitank helicopter was "downed" for every 10 killed "enemy" tanks.

Army aviation was extensively utilized on likely avenues of tank approach for rapid mine laying. Combat engineers would be helilifted to a designated area, lay out minefields, call in mine-carrying transport helicopters, lay the mines, and proceed to a new area.

As the Western press noted, by employing various means and modes of fighting armored units in the course of the exercise, Bundeswehr command authorities were implementing views of the NATO leadership: "It is virtually impossible to count on success in an engagement or operation without destroying armored troops as the enemy's main striking force and without preserving friendly tanks."

In the course of the exercise, the foreign press emphasized, considerable attention was focused on working on logistic and medical support. For example, each division consumed approximately 500 tons of fuel each day (fuel supply required the services of more than 60 10-ton fuel tanker trucks). To provide medical support to the combat troops, one of 30 T/O prescribed medical rail consists actually deployed during a period of 72 hours, staffed by 80 medical reservists. When fully task-loaded, it is capable of handling up to 350 seriously wounded and 150 lightly wounded.

The holding of such provocational militarist displays, both on the basis of NATO and national plans, which are of an openly anti-Soviet, antisocialist thrust, demands that the servicemen of the Soviet Armed Forces constantly increase their political vigilance and combat readiness, so that they, together with the fighting men of the brother armies of the nations of the socialist community, can offer a devastating rebuff to the aggressor at all times.

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3024

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## PERCEPTIONS, VIEWS, COMMENTS

### COMMENTS ON ORGANIZATION OF U.S. MECHANIZED BRIGADES

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press 7 Jul 82) pp 27-31

[Article, published under the heading "Ground Forces," by Col (Res) P. Isayev: "U.S. Mechanized Division Brigade in the Offense"]

[Text] Within the overall system of preparing the U.S. armed forces for an aggressive war against the nations of the socialist community, preparations which have become sharply stepped up in recently years, considerable attention is focused on improving the organizational structure of ground forces combined units and units, equipping them with new weapons, and finding improved modes of combat employment in offensive operations.

In conformity with U.S. field manuals, the offense is considered one of the principal categories of combat operations. It essentially consists in delivering reliable fire on the enemy with all types of weapons, swift advance by combined units and units to capture or destroy the enemy's personnel, weapons and combat equipment, as well as capture of vitally important areas (installations) and territory.\*

Judging from statements made by U.S. military experts, the main emphasis in accomplishing offensive missions is placed on mechanized and armored combined units and units, which constitute the striking power of ground forces.

A brigade of a U.S. mechanized division (frequently called a mechanized brigade in the U.S. military press) usually fights as a division element, in its forward or support echelon, on the main axis or in a secondary sector. It varies in force composition, depending on mission, nature of the terrain, and specific situation conditions. Brigade organic means include only command and control agencies (headquarters). Combat maneuver and rear services subunits (motorized infantry and tank battalions, artillery battalions, combat engineer and others) are incorporated into the brigade in the quantity required to accomplish a specific combat mission.

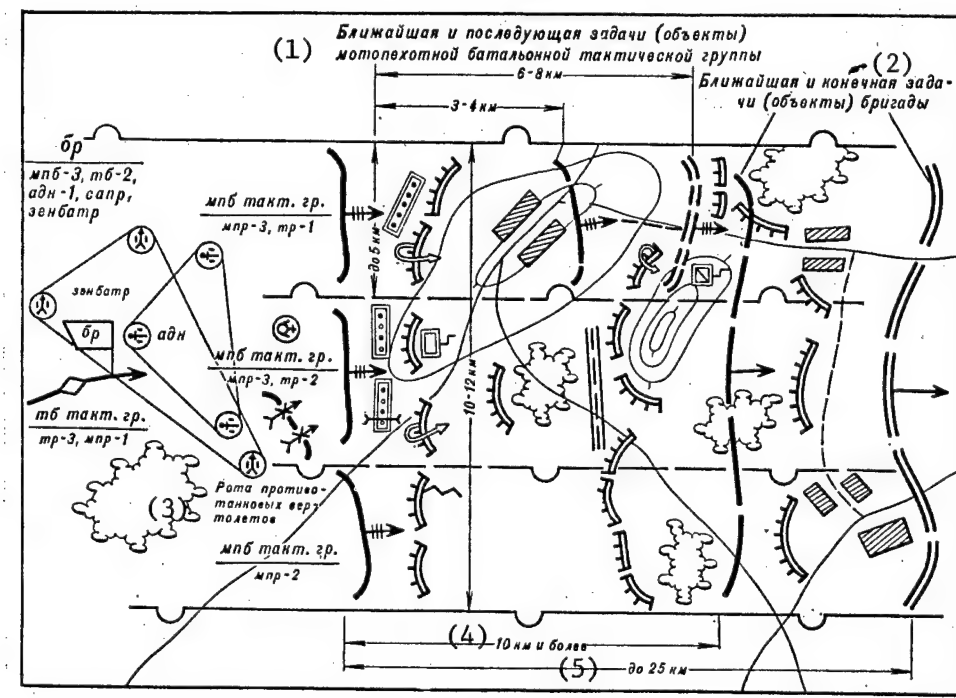
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\* For more detail on the views of U.S. experts on the conduct of offensive operations, see ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No 5, 1979, page 29 -- Ed.

From 3 to 5 motorized infantry and tank battalions would be assigned to the brigade for the period of an offensive. During offense on the division main axis of advance, for example, it could contain (one version) 2-3 motorized infantry and 1-2 tank battalions, and on an auxiliary axis -- 2 motorized infantry battalions and 1 tank battalion. In addition, the brigade usually contains 1 or 2 155 howitzer battalions (direct support), a combat engineer company, a battery of Vulcan self-propelled antiaircraft gun mounts, and an EW subunit. As a rule brigade combat operations are supported by one or two battalions of 155 and 203.2 mm howitzers (general support), as well as a company of fire support helicopters.

It is emphasized in the U.S. press that brigade offensive actions will be conducted in close coordination with tactical air, airborne assaults, and air-mobile subunits.

Considerable importance is attached to the element of surprise. It is believed that a stunned or surprised adversary, even if he possesses superiority in forces, will be unable to offer adequate resistance. Bearing this in mind, the brigade commander should execute diversionary actions, take steps to delude the enemy, and exploit the high degree of mobility of friendly units and subunits.



Combat Formation of U.S. Mechanized Division Brigade in the Attack (Variation)

Key:

- |   |                                    |
|---|------------------------------------|
| 1. Immediate and subsequent objectives of motorized infantry battalion task force | 3. Company of antitank helicopters |
| 2. Brigade immediate and end of-jective   | 4. 10 km and more                  |
|   | 5. Up to 25 km                     |
|   | бр. brigade                        |

(Key to diagram on preceding page, cont'd)

мпб. Motorized infantry batal-  
lion  
мб. Tank battalion  
адн. Artillery battalion

санр. Combat engineer company  
зенбамр. Antiaircraft battery  
такм. гр. Task force  
мпр. Motorized infantry company  
мп. Tank company

It is noted in the foreign press that the principal forms of brigade maneuver in the offense are breakthrough and close envelopment, and sometimes close double envelopment. The method of infiltration through the enemy's combat formations can be employed in combination with these. It consists in the following. Small groups penetrate through to the enemy's rear through gaps in the combat formations of the defending subunits, with the objective of concentrating in areas designated in advance and subsequent organized capture of objectives. Forested, broken and swampy terrain is frequently utilized for this. Taking up an attack position, these teams attack the designated objective at the specified time. After accomplishing their mission, they link up with the main forces or proceed to friendly dispositions. The full-strength brigade does not execute a deep envelopment during the conduct of independent actions, but as a division element it may also participate in this type of maneuver.

A combat mission in the offense is assigned as a rule by objectives. The depth and content of a mission depend primarily on combat capabilities, the general plan of battle, the state of the enemy's defense, the nature of the terrain, and weather conditions. Usually the content of a brigade mission is annihilation of the enemy within a designated zone and capture of a position (objective) which provides advantageous conditions for subsequent division offensive exploitation.

U.S. Army field manuals do not indicate specific tactical standards for advancing combined units and units (width of zones of advance and depth of combat missions), but they can vary, based on the experience of field exercises. For example, a brigade operating on the main axis of advance of a mechanized division may be assigned a zone 10-12 km wide. When advancing in the attack echelon, its immediate mission is the capture of objectives to a depth of 10 km and more, while its end objective is to destroy enemy divisional reserves and to seize a position (objective) located at a distance of up to 25 km from the enemy's main line of resistance (see diagram).

Depending on the assigned mission, available forces and current situation, the brigade commander makes the decision on the establishment of his force grouping and its combat formation. The force grouping will be based on battalion task forces, which are formed for the purpose of achieving maximum effective utilization of the combat capabilities of the motorized infantry and tank battalions. Battalion task forces in which motorized infantry subunits are predominant are called motorized infantry task forces, and when tank subunits are predominant -- tank task forces.

A motorized infantry battalion task force usually contains a motorized infantry battalion, a tank company, a combat engineer platoon, and a platoon of Vulcan antiaircraft guns, while a tank battalion task force contains a tank battalion, a motorized infantry company, a combat engineer platoon, and a Vulcan platoon.

The brigade may establish its combat formation in one or two echelons. Most typical is a two-echelon formation with 2 to 3 battalion task forces in the first echelon and 1 in the second. In the opinion of U.S. experts, this ensures maximum utilization of the subunits' firepower ahead of the attack frontage, continuous pressure on the enemy with the objective of breaking through his defense and prompt engagement of the brigade support echelon (reserve) for offensive exploitation and subsequent pursuit of the enemy.

When attacking a prepared defense, motorized infantry battalion task forces will most frequently operate in the attack echelon, while tank battalion task forces will be assigned to the brigade support echelon (reserve). When attacking a hasty defense, as well as in conditions of employment of nuclear weapons, tank battalion task forces should be in the brigade forward echelon, breaking through the enemy's defense without a halt and achieving deep offensive exploitation.

U.S. military experts believe that a two-echelon brigade formation can be employed, first of all, when it is attacking a prepared enemy defense disposed in depth; secondly, with the aim of capturing objectives deep in the defense and offensive exploitation; third, when executing a close envelopment maneuver and, finally, in combinations of the above.

The single-echelon brigade formation may be employed when the enemy has been or may be weakened and his defense is not disposed in depth; during an offensive operation on a wide front if the division in which the brigade is fighting has a combat formation which is disposed in depth; when the brigade is assigned the mission only of breaking through the enemy's defense and securing the engagement of other combined units and units.

A battalion task force advancing in the brigade forward echelon can form in a single echelon (all companies in an extended line) or in two echelons. The two-echelon formation is considered the most typical: two companies in the first echelon and one in the second.

Missions are assigned to battalion task forces by objectives. The task force may be assigned one or several objectives successively positioned deep in the enemy's defense. These objectives may be inhabited localities and strong-points, important hilltops, troop and weapon positions.

An immediate objective is assigned to a task force usually to a depth of 3-4 km, with a subsequent objective to a depth of 6-8 km.

Depending on the specifically developing situation, the brigade may shift to the attack without a halt or from a position of close contact with the enemy.

In the former case the brigade subunits advance from depth to the attack position (advance to contact) and engage directly from the march or from prior-occupied concentration areas located to the rear of friendly forces, 30-50 km from the enemy's main line of resistance. The attack without a halt in attack position usually occurs when the adversary has hastily shifted to the defense, as well as if he is inferior to the attacking force in fighting efficiency and mobility.

Attack from a position of close contact is organized as a rule when the brigade advances from a line of departure to a prepared enemy defense.

It is stressed in the foreign press that a brigade shift to the attack will be preceded by preparation fire, including artillery bombardment (usually running up to 50 minutes) and airstrikes. U.S. military experts believe that nuclear strikes may be delivered and chemical weapons employed to support brigade offensive operations.

The purpose of fire preparation is to kill the enemy's troops in their defensive positions and to suppress the enemy's weapons, primarily in the breakthrough sector. In order to break through the prepared enemy defense, the attacking force, in the opinion of U.S. experts, should possess a four-five-fold superiority in tanks, a two-threefold superiority in personnel, and an eightfold superiority in artillery.

Aviation (tactical and army) participating in fire preparation flies massive bombing and low-level strikes on positions and installations which have not been hit by field artillery, that is, operational-tactical missile launcher positions, troop and combat equipment concentration areas, support echelons (reserves), command and control facilities, and the most important strong-points and rear services facilities.

After this the battalion task forces of the brigade forward echelon initiate the assault phase, from the line of departure. U.S. military experts state that it shall be designated at a distance of 1-3 km from the enemy's main line of resistance and should provide safety to the attacking motorized infantry from effective machinegun fire. If the attack is being conducted without a halt in attack position, during the period of fire preparation the brigade forward-echelon subunits advance from concentration areas in march formation, and subsequently in approach march and combat formations, timed to pass the line of departure at the designated time. Motorized infantry subunits attack on armored personnel carriers and infantry fighting vehicles, led by tanks, and endeavor to penetrate the enemy's defense without a halt, to advance into the flanks and rear of the forward-echelon units and subunits, and to seize their objectives.

At this same time the battalion task forces of the brigade forward echelon open fire with all weapons on the enemy's forward defensive positions in order to intensify the fire effect and to interdict return fire.

When the attacking subunits reach the forward edge of the battle area, artillery and air commence close support of the attack, hitting enemy personnel and weapons positioned on succeeding defensive lines.

The offensive operation begins as a rule with penetration of the enemy's main line of resistance. The brigade will accomplish breakthrough of the main line of resistance across a narrow frontage (up to 3 km), most frequently with motorized infantry subunits mounted on APCs and IFVs with tank support. Penetration will be accomplished by dismounted motorized infantry only on terrain unsuited to tanks and when attacking well fortified enemy defenses.

When the attack phase commences, the forward-echelon battalion task forces endeavor to capture enemy defensive positions, preventing the adversary from engaging reserves to block the advance. Tanks and motorized infantry advance swiftly to seize the assigned objectives. Enemy subunits impeding accomplishment of the mission are destroyed. Some strongpoints may be bypassed in order to advance rapidly deep into the enemy's defenses. Motorized infantry mounted on APCs and IFVs follow directly behind the tanks. Only when the enemy offers stubborn resistance is it considered advisable for some of the motorized infantry subunits to dismount for the assault. After destroying the enemy, they continue the advance mounted on armored personnel carriers and IFVs, working in close teamwork and cooperation with the tanks. The latter usually support the motorized infantry advance with fire, suppressing enemy weapons which are hindering the advance. Such joint actions create conditions for widening the breakthrough sector.

Having captured the first and second defensive positions on the main line of resistance and having accomplished the immediate objective, the battalion task forces of the brigade forward echelon continue offensive exploitation without a halt toward the flanks and straight ahead. A situation may arise where they will be compelled to repulse a counterattack by the support echelon of a defending enemy division. It is recommended that such a counterattack be repulsed by artillery fire and helicopter gunships, by tactical airstrikes, and by a portion of the forces of the brigade forward echelon. If the adversary mounts a counterattack with substantial forces and is capable of thwarting accomplishment of the assigned missions, the brigade commander should organize defense at the point which has been reached, repulse the counterattack, and ensure capture of the designated objectives.

The brigade support echelon is usually engaged after the brigade has accomplished its immediate objective, in order to build up the pace of advance or to accomplish the final objective. In some instances it may be employed to repulse a counterattack by the enemy's divisional reserves.

Engagement of the support echelon would be supported by artillery fire, helicopter gunships, and tactical airstrikes. The brigade support-echelon battalion task force advances swiftly forward in order to seize the subsequent objective, located in the third position in the enemy's main defensive zone.

Following capture of the designated objective at a depth of up to 25 km (final objective), the brigade consolidates at the point to which it has advanced, to support engagement of the division second echelon, or continues the advance, depending on the specifically prevailing situation. Combat and rear services support activities should be performed at this stage of the battle.

U.S. Army field manuals stress that if the enemy withdraws, the brigade commander shall immediately organize pursuit, recommending swift pursuit in approach march formations in order to prevent the enemy from consolidating in new positions.

A brigade in the division support echelon advances at this time in march and approach march formations to a distance of 8-10 km, and is usually engaged to accomplish the division's final objective.

Judging by the views of U.S. military experts, these are the basic principles of organization and conduct of offensive operations by a U.S. mechanized division brigade.

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3024

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## PERCEPTIONS, VIEWS, COMMENTS

### COMMENTS ON AIR SUPPORT FOR U.S. RAPID DEPLOYMENT FORCES

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press 7 Jul 82) pp 43-46

[Article, published under the heading "Air Forces," by Col V. Nikolayev: "Employment of Strategic Aviation in the Interests of the 'Rapid Deployment Forces'"]

[Text] The U.S. military, pursuing its expansionist policy and endeavoring to exert direct military pressure on nations and governments which are objectionable to the United States, particularly in the Near and Middle East, made a decision in 1980 to establish so-called "rapid deployment forces" (RDF),\* designated to carry out the aggressive schemes and gendarme functions of the U.S. imperialists in regions of the world which are "vitally important" to them. Of great importance, according to information in the Western press, is the assignment of a large number of B-52 bombers from the Air Force Strategic Air Command (SAC) to actions in support of the RDF.

General R. Ellis, former commander of SAC, was the principal inspirer of establishment of such a strategic projection force (SPF). At the time the decision was being made to form an SPF, he stated that the B-52 bombers assigned to it, operating from air bases in the continental United States and overseas, were capable of precision bomber strikes on targets located in the oil-rich Persian Gulf area.

Judging from reports in the foreign press, at the first stage of establishment of the SPF, 28 B-52H heavy strategic bombers are to be assigned to it, as well as 10 KC-135 tankers, 8 RC-135, SR-71 and U-2 reconnaissance aircraft, plus 2 airborne command posts (EC-135 aircraft). In addition, E-3A Sentry early warning radar detection and control aircraft (AWACS system) and EA-6B electronic warfare aircraft may be assigned to support the bomber operations.

The nucleus of the SPF consists of B-52H bombers which, in the estimate of U.S. Air Force spokesmen, have a greater range, as they are powered by economical engines and require fewer midair refuelings (Figure 1) [not reproduced] than the B-52D and G. Depending on altitude and route to the target, with

\* For more detail on the "rapid deployment forces," see ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No 2, 1982, pp 7-11 -- Ed.

an equal bomb load, the combat radius of B-52H bombers averages 50 to 100 percent more than that of the B-52D. In addition, they carry airborne ECM gear providing more effective air defense penetration, as well as equipment providing a capability of automated low-level flight in a terrain-following mode. As a rule they do not require a fighter escort.

The principal shortcoming of the B-52H bombers, in the opinion of U.S. experts, is their limited bomb load (up to 27 500 and 750 pound bombs). Therefore it is planned to modernize 35 of the 96 B-52H bombers in the SAC inventory. As a result of these modifications, each will be able to carry up to 108 bombs (84 inside and 24 on external stations, Figure 2) [not reproduced]. The program is scheduled to run 4 years, at a cost of approximately 50 million dollars.

The SPF is being formed of bombers and tankers of the 5th (Minot Air Force Base, North Dakota) and the 319th (Grand Forks, North Dakota) heavy bomber wings of the 57th Air Division (Minot). In connection with this, division headquarters has been assigned additional missions of logistic support and servicing of air subunits at forward airfields. Reconnaissance aircraft are being assigned from the 9th and 55th aerial reconnaissance wings ((Bil) Air Force Base, California and Offut Air Force Base, Nebraska respectively).

It is stressed that the B-52H strategic bombers in the SPF would have the mission of flying massive bombing strikes (in normal configuration) to provide air support for Army and Marine combined units and units (of the RDF or other U.S. forces) in any part of the world, and chiefly in swiftly developing conflicts. This is why U.S. military observers, who have a weakness for catchy phrases, dreamed up the following mottoes for this group: "Always and everywhere," and "At all times and in all places."

According to U.S. Department of Defense officials, the SPF should become one more deterrent. Its aircraft can operate both from U.S. soil and from forward airfields located in the immediate vicinity of the potential conflict areas.

Formulating its plans for the Near East, the Pentagon figures to use air bases in Egypt, Oman, Kenya, Sudan, Somalia, Saudi Arabia, and a number of other countries in this region, as well as countries adjacent to the region. In addition, strategic bomber missions may be flown from the Pacific (Guam) and Indian (the island of Diego Garcia) oceans, as well as from Australia. B-52 bombers are already flying some of these routes, making regular flights to the Arabian Sea from Andersen Air Force Base (Guam) and from Darwin Air Force Base in Australia. According to a report in the foreign press, SPF aircraft may also fly from airfields in Western Europe.

According to standards developed by U.S. Air Force authorities, this group (including ground service personnel, equipment and logistics) should be deployed within 24 hours after receiving the order to prepare for action in any part of the world, with subsequent full operational readiness in 36-48 hours. It should have the capability to perform its assigned missions from forward air bases in a self-contained manner, with the requisite manpower and facilities established there (including command, control and communications equipment, firefighting equipment, meal preparation, medical support, and other personnel and facilities).

In the view of U.S. military experts, bringing strategic bomber bases closer to combat areas will make it possible substantially to reduce the dependence of bombers on midair refueling capabilities. For example, the B-52H bombers assigned to the SPF will be able, without midair refueling, to strike targets located at a distance of more than 4500 kilometers from their departure field (including a 900-kilometer route segment of low-level flight).

SPF preparedness for operations in conformity with the aggressive plans of the U.S. military is tested in the course of numerous exercises. This is indicated by the fact that in a single year's time the crews of the 5th Heavy Bomber Wing took part in 8 major exercises, while the majority of other U.S. Air Force SAC wings participated only in 4.

In September 1980 and in June 1981, the strategic air forces assigned to the SPF rehearsed their missions at special "Busy Prairie" exercises held on U.S. soil. As is indicated by the foreign press, these were the largest SAC exercises in recent years involving delivery of conventional weapons. A total of 4000 men and all aircraft assigned to the SPF took part in them. A Middle East combat scenario was followed. The bombers of one air wing operated directly from their permanent bases, while those of another wing were redeployed in advance to "forward airfields," simulated by Whiteman Air Force Base (Missouri) at the first exercise, and Biggs Air Force Base (Texas) at the second.

The exercises began (without advance notice) with logistic support teams and security subunits airlifted to "forward airfields," which were ready to receive and service B-52 bombers within 62-65 hours (with the standard specified at 72 hours). Tent cities to accommodate 1100-1300 men were set up at these locations, with their own water supply, electricity, requisite ATC equipment and data collection and processing facilities. After arrival at these bases, the bombers were quickly readied for combat missions, while aircrews were briefed on the target areas and routes to targets, including possible air defense countermeasures by the simulated adversary.

As a rule missions were flown during hours of darkness, at low level, bypassing "detected" active air defense means. The target arrival time of B-52 bombers flying from "forward airfields" was coordinated with the arrival time of aircraft flying from their permanent bases. Actual bombing runs were conducted, on ranges located on mountainous and desert terrain (Nevada and Utah). In the estimate of the deputy commander of the SPF, results did not fully correspond to the character of the missions assigned to the group. Therefore following completion of the 1981 exercise, the aircrews of both wings were ordered to spend a month working only on practical bombing, with the objective of improving bombing accuracy.

In order to demonstrate the capabilities of strategic bombers to conduct combat operations at great distances from U.S. soil, in November 1981, during the RDF "Bright Star" exercise, 6 B-52H bombers, 15 hours after liftoff from Grand Forks and Minot air bases, bombed targets set up at Egypt's Wadi El Natrun range. They dropped 500 and 750 pound bombs (the same as those used in the barbaric bombing raids on Vietnamese territory during the U.S. aggression in Southeast Asia). Each bomber dropped a series of 27 bombs from a height of 300 meters (2-minute interval between bombing runs) at the designated target.

The bombers flew a distance of more than 12,000 kilometers, with several midair refuelings from KC-135 tankers based both in the United States and in Western Europe. After accomplishing the mission, they returned to their bases.

According to reports in the foreign press, the United States intends to hold similar exercises in the future, the purpose of which is to demonstrate U.S. military power and to intimidate the peoples of the Near and Middle East as well as other regions of the world. The United States is presently displaying its readiness to render military assistance to the reactionary Arab regimes and to Israel, and is also attempting to draw into the orbit of its militarist preparations new partners in this strategically important region. In addition, the Pentagon makes no attempt to hide the fact that the heavy bombers of the U.S. Air Force Strategic Air Command are being readied for the conduct of combat operations in support of ground forces in other parts of the world as well, including the close air support mission. In particular, SAC spokesmen state that if necessary as many as 80 B-52 strategic bombers can be assigned to the performance of these missions in the European theaters. All this once again attests to the aggressive aspirations of U.S. imperialism.

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## PERCEPTIONS, VIEWS, COMMENTS

### COMMENTS ON JAPAN'S AIR DEFENSE FORCES

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press 7 Jul 82) pp 46-51

[Article, published under the heading "Air Forces," by Candidate of Technical Sciences Engr-Col V. Tamanskiy: "Japan's Air Defense"; passages rendered in all capital letters printed in boldface in source]

[Text] Japan's ruling circles, with the encouragement and direct support of the United States and taking refuge behind the myth of a "Soviet military threat," are pursuing a course of policy aimed at building up their so-called "self-defense forces," which are more and more becoming transformed into the principal instrument of implementation of militarist schemes, coordinated with Washington, in the Pacific zone. While building up their armed forces, Japan's military leaders at the same time are also devoting considerable attention to organization of reliable national air defense. This article presents, on the basis of data published in the foreign press, the organization, force level, principal weapons, command and control agencies, combat training, and certain information on development of Japan's air defense system.

ORGANIZATION, FORCE LEVEL, AND PRINCIPAL WEAPONS. Japan's air defense system is tasked with protecting military forces, administrative-political centers, industrial areas and other important targets in Japan against air attack. In conformity with this, it is assigned the following missions: surveillance of airspace on the approaches to and over Japan, prompt detection of air targets, including low-flying targets, their identification (for putting active means into operation), and repelling enemy air attacks by intercepting and destroying the enemy's aircraft.

These missions, in the view of Japanese experts, should be accomplished through the coordinated actions of Air Force, Army and Navy air defense units and sub-units designated for repelling enemy air attacks. In addition, as is noted in the foreign press, personnel and equipment from the U.S. military forces stationed in Japan may also be assigned to this mission.

The principal forces and means, particularly fighter aviation, antiaircraft missile systems, detection and control facilities are organizationally elements of Japan's Air Force Combat Aviation Command.\* This finds expression in the

\*For more detail on the composition, forces and weapons of Japan's Air Force, see ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No 3, 1981, pp 45-52 -- Ed.

# Japanese Air Defense Force Level

Fighter Aviation(1)			(2)Antiaircraft Missile Forces		Number of	Num-
Air Wings	Squadrons	Aircraft	Number of	Type of SAM	Designated	ber of
(3)	(4)	(5)	Battalions	System (Ap-	Antiair-	Command
			(6)	proximate	craft Ar-	and
				Number)	tillery(8)	Control
				(7)	Battalions	Wings(9)

## Northern Air Defense Sector

2nd Fighter Wing	203rd Tactical Fighter Squadron	F104J	2	Nike-J (60)	5*	1
	302nd Fighter Squadron	F-4EJ				
3rd Fighter- Bomber Wing*	3rd Fighter- Bomber Squadron	F-1	2*	Hawk (60)		
	8th Fighter- Bomber Squadron	F-1				

## Central Air Defense Sector

6th Fighter Wing	303rd Fighter Squadron	F-4EJ	2	Nike-J (60)	5*	1
	306th Fighter Squadron	F-4EJ				
7th Fighter Wing	301st Fighter Squadron	F-4EJ	2*	Hawk (40)		
	305th Fighter Squadron	F-4EJ				

## Western Air Defense Sector

5th Fighter Wing	202nd Tactical Fighter Squadron	F-104J				
	204th Tactical Fighter Squadron	F-104J	1	Nike-J (30)	3*	1

Table (cont'd from preceding page)

(1)			(2)		(8)	(9)
(3)	(4)	(5)	(6)	(7)		
8th Fighter Wing	304th Fighter Squadron 6th Fighter- Bomber Squadron*	F-4EJ  F-1 and F-86F	2*	Hawk (40)		
Southwestern Air Defense Sector						
81st Fighter Group	207th Tactical Fighter Squadron	F-104J	1  1*	Nike-J (30)  Hawk (20)		1 (com- mand, con- trol and warning group)

\* Air force (equipped with F-1 and F-86F fighter-bombers) and ground forces (Hawk antiaircraft missile systems and antiaircraft artillery) units and sub-units assigned to the air defense mission.

organizational structure of the air defense system. The entire country and adjacent water expanses of the Pacific and seas washing Japan's shores are divided into four air defense sectors -- a Northern, Central, Western, and Southwestern. The Northern and Western in turn are subdivided into two air defense regions, the Central into three, while the Southwestern has none.

The Northern Air Defense Sector (command and control center at Misawa Air Base) is responsible for air defense of the island of Hokkaido and the northeastern part of Honshu, the Central (Iruma, near Tokyo) -- Central Honshu; the Western (Kasuga, near Fukuoka) -- the southern part of the island of Honshu and the islands of Shikoku and Kyushu; the Southwestern (Naha) -- the Ryukyu Islands (the island of Okinawa and neighboring small islands).

The air defense sectors coincide territorially with the zones of responsibility of the principal formations (aviation sectors) of the Air Force combat aviation command: Northern, Central, and Western -- with zones of responsibility the Northern, Central, and Western aviation sectors, and the Southwestern -- an independent composite air brigade.

The principal forces of the air defense sectors are fighters, antiaircraft missile systems, and the units and subunits which handle airspace surveillance and control of active air defense forces. Organizationally they are all elements of aviation sectors (in the Southwestern sector -- an independent composite air brigade).

The principal tactical fighter aviation formation in the sectors is the fighter wing, which as a rule contains two squadrons. The Southwestern sector has an independent composite air group (brigade), containing only one squadron. Each,

depending on fighter types, may contain up to 20-30 aircraft. As is indicated by the foreign press, at the present time, including dual-mission tactical fighter subunits, air defense forces contain 10 air squadrons, totaling 290 combat aircraft, 150 of which are F-104J Starfighters, and 140 are F-4EJ Phantom 2 fighters (see color plate)\*. In addition, 3 fighter-bomber squadrons (more than 60 F-1 and F-86F aircraft) can be designated from the combat aviation command to perform air defense missions.

\* -- [not reproduced]

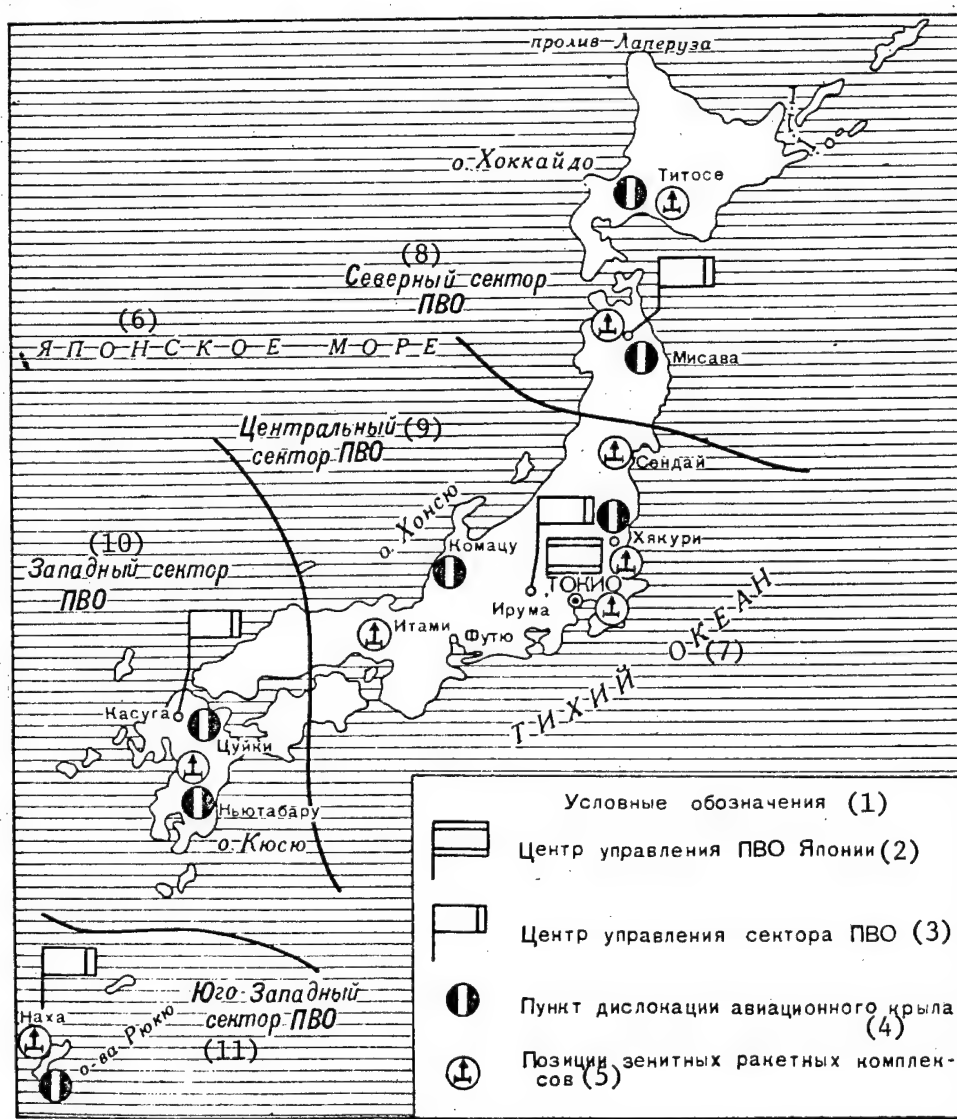


Figure 1. Location of Japan's Principal Air Defense Command and Control Entities, Fighter Deployment Locations and Antiaircraft Missile System Positions

Key:

- |                                       |                                      |
|---------------------------------------|--------------------------------------|
| 1. Legend                             | 3. Air defense sector command center |
| 2. Japan's Air Defense Command Center | 4. Air wing deployment location      |

Key to Figure 1 (cont'd)

- |  |                                     |
|--|-------------------------------------|
| 5. Antiaircraft missile system positions | 8. Northern Air Defense Sector      |
| 6. Sea of Japan                          | 9. Central Air Defense Sector       |
| 7. Pacific Ocean                         | 10. Western Air Defense Sector      |
|  | 11. Southwestern Air Defense Sector |

In addition to fighter units and subunits, the air defense sectors each contain one or two Nike-J antiaircraft missile groups (battalions), which contain 3 or 4 batteries (9 launchers each). According to figures in the foreign press, at the present time there are 6 of these groups (approximately 180 launchers).

In addition, up to 8 Hawk antiaircraft missile groups (battalions) (maximum range 40 km, target altitude 30 m-18 km), containing more than 140 launchers, as well as up to 13 antiaircraft battalions (from artillery regiments of ground forces divisions), armed with 75 and 90 mm antiaircraft guns, 35 and 40 mm twin-mount antiaircraft guns, and quad-mount 12.7 mm machineguns (a total of approximately 300 guns and mounts) from the ground forces can be assigned to air defense. Japan's air defense force level is shown in the accompanying table.

Airspace surveillance, command and control of air defense forces and weapons in the sectors are handled by control and warning wings (group in the Southwestern sector). Such a wing is responsible for detecting and identifying air targets, warning fighter, antiaircraft missile and artillery units and subunits of enemy air attack, and for vectoring fighters to the intercept point. It contains several subunits, of which direct air defense missions are performed by air situation monitoring subunits (usually one) as well as control and warning subunits (three-four). Radar stations (there are 28 of these) perform airspace surveillance. They are equipped for the most part with AN/FPS-20 (air target detection) and AN/FPS-6 (target altitude determination) radars, built in Japan on U.S. license. These radars are capable of detecting hostile aircraft at ranges up to 350 kilometers and of determining their coordinates with an accuracy sufficient for intercept-vectoring fighters. Air traffic control radars can be used for airspace surveillance, and in certain instances naval ship radars as well.

As is noted in the foreign press, U.S. E-3A radar early warning and control aircraft (AWACS system) can be used to extend the detection range on low-flying targets and to guide fighters to such targets.

COMMAND AND CONTROL OF AIR DEFENSE FORCES AND FACILITIES. Overall direction of Japan's air defense is handled by the commander of the Air Force through his headquarters and the combat air command which is subordinate to him. He plans and executes measures pertaining to organizational development of the air defense system, equipping it with the requisite facilities, ensuring the required degree of combat readiness, and determines matters connected with organization of coordination between Air Force and ground forces air defense personnel and weapons, as well as with U.S. air forces stationed in Japan.

Immediate control of all air defense forces and facilities is handled from the national air defense command center, located at combat air command headquarters,

which is located in Futtsu, near Tokyo. Following are the principal tasks of this center: maintaining air defense units and subunits at the required level of combat readiness, distribution of efforts among sectors, coordination of their actions in order to achieve maximum effective utilization of the active and passive means of sectors in repelling an enemy air attack; handling of operational coordination with U.S. air defense forces and means.

Linked with it are the air defense sector command centers (situated at the air sector headquarters) which, on the basis of air situation analysis, exercise operational command and control of air defense forces and facilities (within their zones of responsibility) and organize employment of subordinate fighter and antiaircraft missile system units and subunits, coordinated by place and time, as well as operational coordination with ground forces.

An important task of these centers, according to reports in the foreign press, is collection and synthesis of data on the air situation in the sectors (for making optimal decisions in command and control of subordinate forces and facilities), as well as their transmission to the national air defense command center. Figure 1 shows the disposition of principal air defense command and control agencies, fighter deployment bases and antiaircraft missile system locations.

Each air defense sector contains several fighter control and guidance centers, each of which has its own radar site for detecting targets and determining their coordinates (range, azimuth, and angular height). In addition, linked to them are individual detection and warning radar sites. In certain instances the latter may be directly subordinated to the sector command centers. The fighter control and guidance centers collect and process information on the air situation within a specified area, transmit it to the air defense sector command centers, and utilize it as a basis for decision-making and transmitting commands to subordinate fighter, antiaircraft missile and artillery subunits. They vector fighters to air targets and control the operations of detection and warning radar facilities.

Air defense command and control agencies are provided with data processing, display and transmission equipment operating within the framework of the BADGE automatic control system (developed in the United States and deployed in Japan at the end of the 1960's). Electronic computers with a capability of approximately 1 million operations per second constitute the nucleus of this system.

Both collective and individual-use devices are employed for graphic display of situation information. The former, installed at the national air defense command center, sector command centers and fighter control and guidance centers, provide information display in colors (Figure 2) [not reproduced]. There are terminals at the radar sites, with the aid of which automated air situation data entry and transmission to higher agencies are accomplished.

**COMBAT TRAINING.** It is directed toward maintaining the entire air defense system at a high level of combat readiness and is conducted in the form of drills and exercises, in the process of which personnel acquire and reinforce skills in performing their duties in various situations.

In particular, in the course of daily combat training aircrews of fighter units and subunits practice air target intercepts and gunnery, firing aircraft cannon and air-to-air missiles. As is noted in the foreign press, every Japanese fighter pilot fires a live missile at an aerial target once every two years. As a rule intercept training missions are flown in close coordination with Nike-J and Hawk antiaircraft missile subunits. Japanese and U.S. Air Force aircraft serve as intercept targets. In the view of Japanese military experts, the first stage in each pilot's training to master the above-listed elements takes approximately 6 months from the moment a pilot arrives at his assigned unit. It is considered that after this they attain a combat-ready level and subsequently work on perfecting acquired skills.

In the process of combat training, antiaircraft missile subunit crews work on procedures of repelling an enemy air attack, but without actually firing missiles. Air Force and ground forces antiaircraft missile crews are sent by turns to the United States to the special McGregor missile range in New Mexico to perform actual missile firings.

Considerable attention is also devoted to training all air defense forces and facilities control agencies. Radar facility personnel, for example, regularly practice detection, identification and tracking of air targets, as well as transmitting data to fighter control and guidance facilities. The latter in turn learn rapid situation assessment, making decisions to repulse an attack, vectoring fighters to hostile aircraft, transmitting necessary information quickly and with precision to higher agencies, etc.

A special place in combat training of air defense units and subunits is assigned to exercises. As a rule they are conducted in conditions maximally approaching actual combat. Their principal objective is to test the readiness of air defense forces and facilities to perform their assigned missions. U.S. military aviation units and subunits (U.S. Air Force and Navy), both those stationed in Japan and redeployed to Japan from other parts of the Pacific and from the North American continent, are more and more frequently taking part in these activities.

In addition to daily training, a portion of Japan's air defense forces and facilities is on around-the-clock alert duty, according to a schedule specified by higher headquarters. As is emphasized by the foreign press, alert fighters are at 5-minute scramble readiness. Antiaircraft missile subunits, radar facilities and other control agencies also stand alert duty.

**FUTURE DEVELOPMENT.** Japanese Air Force command authorities, believing that the existing air defense system does not fully meet today's demands, have specified an air defense development program. Judging from materials in the foreign press, the following will be the principal directions of development: increased combat capabilities of active air defense means -- fighter aviation and antiaircraft missile systems; expanded capabilities of the radar air target detection system; improvement of command and control means.

It is planned to increase the combat capabilities of fighter aviation and anti-aircraft missile units and subunits chiefly by adopting new combat equipment.

In conformity with the most recent Japanese armed forces development program, for example, plans call for replacing first of all the obsolete F-104J aircraft with the modern U.S. F-15 Eagle fighter. A total of 100 of these fighters are to be purchased, 88 of which will be assembled or built on license at Japanese plants. The first units were delivered to the Air Force in 1981 (several two-seater TF-15J trainers and single-seater F-15J aircraft). Plans also call for upgrading the F-4EJ Phantom 2 fighters, after which the Air Force will contain four squadrons of 15J fighters and six F-4EJ squadrons.

It is proposed that the Nike J (Air Force) and Hawk (ground forces) anti-aircraft missiles be replaced with new, U.S.-developed Patriot systems.

Expansion of the capabilities of the air target radar detection system (particularly for low-flying targets) is to be achieved primarily by adopting E-2C Hawkeye radar early warning and control aircraft, purchased in the United States (Figure 3) [not reproduced]. According to Air Force development plans, by the end of 1988 the first squadron (4 units) of these aircraft will be formed at Misawa Air Force Base (Northern Air Defense Sector). An additional 9 or 10 of these aircraft would be acquired later.

As was reported in the foreign press, during periods of heightened tension E-2C Hawkeye aircraft would patrol around the clock. These aircraft would carry a 5-man crew -- 2 pilots and 3 operators, using an airborne radar and other equipment to detect and identify air targets and to transmit data to ground centers, as well as fighter guidance to hostile aircraft. These aircraft will patrol at altitudes of 7000-9000 meters, at a speed of approximately 600 km/h, remaining 6 hours continuously in the air.

Improvement and further development of technical means of command and control of air defense forces and facilities are being carried out within the framework of the program to upgrade the equipment of the BADGE automated control system, to be completed by 1985.

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3024

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## PERCEPTIONS, VIEWS, COMMENTS

### COMMENTS ON THE NEW U.S. B-1B BOMBER

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press 7 Jul 82) pp 51-54

[Article, published under the heading "Air Forces," by Engr-Col L. Leonidov: "The New U.S. B-1B Bomber"]

[Text] There has recently been a sharp increase in the aggressiveness of U.S. imperialism, which has proceeded in the direction of an unchecked arms race in general and a strategic nuclear missile arms race in particular. In its plans to increase its nuclear potential, the Pentagon is devoting heightened attention to the development of a number of new strategic systems, including the MX ICBM, Trident missiles to arm nuclear-powered submarines, as well as air-launched, sea-launched and land-based cruise missiles.

Following a certain lull, the foreign press once again contains reports about the U.S. B-1B strategic bomber (see Figure) [not reproduced]. It was to be developed to replace the B-52 aircraft, but in 1977 commencement of series production of this bomber was postponed due to its excessive cost. The Pentagon is now reviving this program. Several alternative proposals for resolving the problem of replacing the obsolete B-52 bombers were first considered. In particular, the possibility of using modified Boeing 747, DC-10 and L1011 wide-bodied passenger jets as cruise missile delivery platforms were studied, and the proposal was made to update the FB-111A bombers and F-111D fighter-bombers, giving them an increased combat radius, greater thrust to weight, arming them with cruise missiles, as well as development of a new bomber based on the B-1.\*

In the opinion of U.S. experts, however, almost all the versions considered contained serious shortcomings. Studies indicated that major modifications would be needed to turn wide-body jets into cruise missile platforms: they would have to be beefed up structurally to improve their survivability in case of enemy nuclear strikes on the airfields where they were based, measures must be devised to protect them against the casualty-producing elements of nuclear bursts, etc, and all this will require considerable expenditures. As for the

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\* For more detail see ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No 4, 1980, pp 56-57; No 10, 1980, pp 57-58 -- Ed.

FB-111A bombers, after modernization they could carry only a relatively small number of cruise missiles.

As an optimal problem solution lacking the majority of the above enumerated drawbacks, it was proposed that work begin immediately on designing a new strategic bomber, the B-1B, based on the B-1A. This proposal, supported by top U.S. Department of Defense officials, also won the official approval of the U.S. President, who added development of the B-1B bomber to his so-called "strategic program" announced in October 1981.

In the opinion of U.S. military experts, the new multirole combat aircraft, based on the B-1A bomber, could perform the following missions: penetration of the enemy's air defense system and destruction of targets deep in the heartland; delivery of nuclear strikes, including cruise missiles launched beyond the range of active air defense means; conduct of operations to support "rapid deployment forces" in various parts of the world; conduct of reconnaissance for the Navy; destruction of enemy surface ships in sea and ocean theaters; minelaying.

At the preliminary study stage specialists at Rockwell International did not exclude the possibility of designing several versions based on the B-1 bomber, including a cruise missile platform, a traditional bomber armed with air-to-ground missiles and aircraft bombs, and an air defense penetration aircraft. A conclusion was reached from analysis results, however, indicating the advisability of designing a single version, which will use approximately 70 percent of the structural components and systems of the B-1A bomber.

Judging from reports in the foreign press, earlier Rockwell International and Air Force officials planned to design all versions of the B-1B with a fixed wing, which would simplify the bomber's structural design and reduce its weight due to elimination of a swing mechanism. Now, however, the decision has been made to maintain on the B-1B the same range of variable sweep as on the B-1A, that is, 15-67.5° (according to some reports the sweep range will be 15-59.5°).

The B-1B bomber will have a gross takeoff weight of approximately 217 tons and carry up to a 56-ton combat payload. It will be powered by four General Electric F102 turbofan engines each developing a maximum thrust of approximately 13.6 tons, an improved version of the F101-GE-100 engines; the air intakes will be nonadjustable. The aircraft will carry a 4-man crew (2 pilots and 2 airborne electronic systems operators). It will fly at transonic and supersonic speeds somewhat in excess of Mach 1. Range without midair refueling will be approximately 10,000 km.

The aircraft will contain 2 weapons bays in the fuselage, each of which will accommodate 8 cruise missiles on special launchers, SRAM missiles, nuclear or conventional aircraft bombs, and also, when necessary, additional fuel tanks or sea mines. Design of the weapons bay required a considerable volume of engineering research to eliminate pressure and noise fluctuations when opening the bomb bay doors in flight. It was proposed in particular to use special extendable spoilers for this purpose. External weapons stations will accommodate 14 cruise missiles, making a total missile load of 30 units.

Composite materials will be extensively employed in the aircraft structure, and costly titanium alloys will be replaced by aluminum alloys. Requirements of reducing the effective reflective surface will be considered in designing the airframe. Substantial changes in comparison with the B-1 will be made in the navigation-bombing and radar equipment. For example, the decision was made to employ a new multifunction radar on the B-1B, capable of detecting ground and air targets, as well as terrain-following capability. A large number of other airborne electronic equipment components, improved equipment intended for the B-52 aircraft, will be employed. They include a radioelectronic equipment control unit, a unit for processing data obtained from radar, a digital computer memory, and a video recorder.

Foreign experts estimate the cost of designing and building the B-1B strategic bomber at 19-20 billion dollars for the program. According to reports in the foreign press, a contract for more than 50 million dollars has already been signed with Rockwell International for research and development on the B-1B, in spite of the fact that a final design has not yet been selected. Company officials believe that the production capabilities of Rockwell International will enable it to build a production aircraft and put it into the air within 38 months after the decision is made to go ahead, while the first squadron of 15 aircraft can be delivered to combat-ready U.S. Air Force Strategic Air Command forces in 56 months.

Two of the existing four experimental models of the B-1A and the first production B-1B are to take part in 1000 hours of flight tests. In particular, one experimental model of the B-1A will be used for structural flight testing and weapons release experiments, while the other will be used to test airborne radioelectronic equipment, and the first production B-1B will be used to test for flutter and to evaluate flight performance. The company figures that the last of the 100 B-1B aircraft to be purchased will be built in 1987, with delivery of the first production aircraft scheduled for December 1984.

According to reports in the Western press, Air Force officials are considering a bomber developed on the Stealth program as a weapons system to supplement the B-1B; the principal task of the Stealth program is to develop aircraft with an extremely low level of giveaway indications. In the opinion of U.S. military experts, in the first years after the B-1B aircraft becomes operational it will be capable of penetrating the air defense of the potential adversary, but later accomplishment of this mission will become doubtful, and only a Stealth-type bomber would be able to penetrate a sophisticated air defense system of the 1990's and hit targets deep in enemy territory.

At the present time the U.S. firm of Northrop is conducting studies on contract with the Air Force connected with the possible development of a future ATB (Advanced Technology Bomber) strategic bomber, which would employ Stealth technology. Experts at Northrop believe that principal efforts in the development of such an aircraft will be directed toward reducing its size in order to reduce the reflected radar return, toward changing the shape of the airframe in order to eliminate abrupt transitions, which act as corner reflectors of electromagnetic waves, as well as toward extensive employment of materials and coatings which absorb radio-frequency waves.

An important role will also be assigned to efficient means of electronic countermeasures (passive and active, including adaptive systems, which tune to the frequency of an emitting radar) and to highly sensitive systems with 360 degree coverage to detect ground radar system coverage zones and to issue commands to alter the flight profile and route. It is believed that they will all make it possible sharply to reduce the probability of bomber detection by ground air defense radars and will make it difficult to employ surface-to-air missiles against it.

Judging by reports in the foreign press, an ATB aircraft may be designed as a "flying wing," which is connected with the necessity of providing the required range and combat payload. Its top speed at high altitude will be Mach 2.2, and Mach 1.2 at low altitude. It is unlikely that regular production on the ATB will begin earlier than 1990, with deliveries not being made before 1991.

Air Force officials believe that development of a Stealth strategic bomber is a complex technical problem, will require considerable outlays and will take more than 10 years. Therefore building the B-1B bomber is a paramount task, and there is no doubt that it can be operational within a few years.

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## PERCEPTIONS, VIEWS, COMMENTS

### COMMENTS ON FOREIGN UNGUIDED AVIATION ROCKETS

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press 7 Jul 82) pp 54-58

[Article, published under the heading "Air Forces," by Engr-Lt Col N. Germanov: "Unguided Aviation Rockets"]

[Excerpt] Aircraft-fired unguided rockets occupy an important place in the aviation weapons system of foreign countries. They are carried by practically all tactical fighters, ground attack aircraft and combat helicopters, and are designed for use against ground, surface and air targets.

In comparison with guided missiles and bombs, rockets have poor accuracy and limited range. They are, however, distinguished by high reliability, relative simplicity of design and low cost, and mass production capability. In addition, in contrast to guided weapons, aircraft and helicopters can carry large numbers of rockets. All these points considered together have resulted in the widespread use of rockets as an aircraft weapon. Therefore leading capitalist countries devote considerable attention to the development of new and improvement of existing rockets, with principal efforts focused on improving accuracy and range, as well as the power of rocket warheads.

We present below, on the basis of materials published in the foreign press, information on the design features of those aircraft rockets which are in the most widespread use abroad (rocket specifications are given in the table) and discuss the directions of rocket improvement.

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## PERCEPTIONS, VIEWS, COMMENTS

### COMMENTS ON DEVELOPMENT OF NEW U.S. CRUISE MISSILE

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press 7 Jul 82) p 58

[Article, published under the heading "Air Forces," by Engr-Col R. Radomirov: "Promising Land-Based Hypersonic Cruise Missile"]

[Text] As is reported by the foreign press, the U.S. firm Sandia, jointly with the Defense Advanced Research Projects Agency, is studying the possibilities of developing a future land-based multimiission hypersonic cruise missile. It would be used against air (aircraft and cruise missiles), surface (combatants, cargo ships and transports) and ground (mobile and stationary) targets in all weather, day or night, at a range up to 1600 kilometers.

As the designers envision it, hypersonic speed, a portion of the trajectory above the atmosphere, reentry at different angles, and high maneuverability should give the cruise missile high survivability when penetrating a hostile air defense system.

The missile could carry either a nuclear or conventional warhead. Guidance to the target would be provided by the new TIGER (Tactical Inertial Guidance and Extended Range) system in the initial and middle phases of flight and by a homing guidance system in the final flight phase. It would be powered by a cluster of several solid-propellant motors. Judging by reports in the U.S. press, such a propulsion unit was flight-tested in 1980 on an experimental cruise missile.

Combat employment of a hypersonic cruise missile would be as follows. Following launch from a land launcher, the missile would be powered through the atmospheric phase of the flight trajectory by a first stage, which would shut down and separate on entry into the above-atmosphere phase. The missile would continue in a ballistic trajectory and, on reaching a specified altitude, the second stage would ignite on ground command, accelerating the missile to an atmospheric reentry velocity of 3000-3600 m/s. The second stage would then separate, and at an altitude of approximately 7500 meters the missile would shift to horizontal flight mode and would maneuver according to a pre-programmed sequence to search for, find and destroy the designated target.

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## PERCEPTIONS, VIEWS, COMMENTS

### COMMENTS ON U.S. NAVY DIGITAL RADIO COMMUNICATIONS SYSTEMS

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 7, Jul 82 (signed to press 7 Jul 82) pp 66-68

[Article, published under the heading "Naval Forces," by Capt-Lt A. Stefanovich: "U.S. Navy Digital Radio Communications Systems"]

[Text] U.S. Navy command authorities, carrying out their militarist plans, are improving existing and developing new command, control and communications systems. An important role is assigned to digital methods of data transmission, the principal virtues of which are high resistance to jamming, simplicity of encrypting transmitted information, and communications systems standardization capability.

At the beginning of the 1960's the ships and aircraft of the U.S. Navy began to be equipped with the LINK 4A and LINK 11 digital radio communications systems, which formed the basis of the U.S. Navy's C<sup>3</sup> system at the tactical echelon.

The LINK 4A was originally designed for Air Force air defense fighter control. It was subsequently employed in all-weather carrier landing systems. It provides the following modes: fully automatic (hands-off landing), semiautomatic (the pilot lands on the basis of the information obtained from instruments and displays), and manual (the pilot lands on commands received by radio from the carrier air traffic control center). In automatic and semiautomatic modes data are transmitted at high speed, which ensures uninterrupted feed of control signals to the autopilot and cockpit displays.

The next stage in development of the LINK 4A communications system in the Navy was its utilization for vectoring aircraft to air targets. According to a report in the foreign press, for example, the E-2C Hawkeye radar early warning aircraft can simultaneously control from 3 to 4 F-14A Tomcat fighters.

This fighter, in contrast to other carrier-based aircraft, is equipped with an AN/ASW-27 two-way data communications set, which enables it to communicate its own position and that of the target to the early warning aircraft.

As early as the 1950's U.S. naval experts concluded that transmission of data to the ships of a task force on one's own position and that of targets by radiotelephone communication channels failed to meet the demands of the times.

New radars, inertial and radio navigation systems determined with a high degree of accuracy the location of targets and the ships of the task force, but employment of radiotelephone communications for mutual exchange of information between ships did not enable them to take advantage of this accuracy, due to the time required for information transmission and limited the time expended on organizing for defense of the task force.

The LINK 11 digital radio communications system was developed to eliminate these shortcomings; this system became a component part of the NTDS, MTDS, and ATDS tactical data systems which became operational in the U.S. Navy in the 1960's. At first data in the NTDS system was transmitted in the shortwave band in the ship-to-ship link. Later the UHF band began to be used in this tactical data system, which permitted only line-of-sight data transmission.

In the LINK 11 system signals are transmitted by single-sideband transmitters on 16 data channels at a rate of 2400 bits per second. A combined signal, formed by audio frequency channels, is applied to the input of a single-sideband transmitter which passes a band of audio frequencies 3 kHz in width. In the first LINK 11 systems each audio frequency was generated by a separate oscillator, with demodulation accomplished by analog components. The frequency instability of the analog components led to a worsening of equipment performance characteristics as the modems aged. Employment of digital devices in today's modems has made it possible significantly to improve frequency stability and the characteristics of the receiving and transmitting equipment. The terminal devices of the LINK 11 system, performing the functions of modems, control the flow of information transmitted in the NTDS system. Data are fed to the radio transmitter from the AN/UYK-7 computer output in the form of blocks of information consisting of 24 bits. Coding of the transmitted information with a jamming-resistant code makes it possible to detect and correct errors during reception.

One of the shipboard radio sets controls the flow of data in the communications system. Determining the LINK 11 operating rate, it specifies the sequence of transmission of messages between ships of the task force. Operation begins with synchronization and first ship address marker signals coming from the control set. After completion of information transmission by the first ship, the control set gives the address of the following ship. A complete system cycle ends with transmission of a special signal by the control station. The process of mutual data exchange within the NTDS system is fully automated and takes place without operator participation. Information usually contains target location data obtained from shipboard detection means (radar, sonar, etc).

System operation in the other mode begins with information transmission by the control station and subsequently by other ships in the force in a prespecified sequence. As is reported by the foreign press, however, this has not been widely adopted. In circular transmission mode, information is transmitted only by one of the ships.

According to reports in the foreign press, approximately 80 ships, E-2C Hawkeye aircraft, S-3A Viking carrier-based ASW aircraft, and P-3C Orion land-based patrol aircraft are equipped with the LINK 11 data communications system.

As is noted in the foreign press, ships of older designs and small displacement are not equipped with the NTDS tactical data system. The LINK 14 digital data communications system was developed so that they could receive data from the NTDS system. Data transmission in this system takes place at a rate of 75 bits per second, by normal teleprinter channels in the HF and UHF bands by one of the ships of the force equipped with the NTDS system. The only U.S. aircraft to carry this data communications equipment is the P-3C Orion.

The LINK 4A, LINK 11, and LINK 14 digital radio communications systems are extensively employed on the ships and aircraft of the U.S. Navy, supporting the operation of tactical data-control systems. In the opinion of foreign experts, however, these systems no longer meet the demands made on modern radio communications equipment as regards security, flexibility and capability of utilization in conditions of conduct of hostile EW.

There presently exist two basic digital data communications development programs. One specifies development of a Fleetsatcom satellite communications system for the Navy, while the other proposes development of a JTIDS joint tactical information distribution system for all branches of the U.S. armed forces.

When it is fully operational, Fleetsatcom will transmit information for the Navy on 10 radio channels, with the aid of which eight communications subsystems will be established.

Two channels each have been designated for two subsystems, and one each for the remainder. The bandwidth of each channel is 25 kHz, with the exception of one for fleet circular transmissions (500 kHz). Signals on this channel are transmitted in the centimeter band, are received by a horn antenna and then converted to UHF band signals. Communications in the direction ground-satellite are in the 290-320 MHz band, and satellite-ground -- in the 240-270 MHz band.

It is planned to install on P-3C Orion aircraft, for utilization of the Fleet-satcom satellite communications system, in addition to existing radio communications gear, a power amplifier, a satellite antenna system, a modem, and an intermediate memory.

The power amplifier should boost the aircraft transmitter's power output to 400 watts needed for reliable information transmission in the aircraft-satellite communications link. One of two channels (28 dbw radiated power) will be used in the satellite-aircraft link, due to the poor aircraft antenna gain.

Aircraft used for UHF band satellite communications are equipped with antennas with a hemispheric radiation pattern, which eliminates a satellite tracking requirement. Such an antenna system is designed as a combination of separate antennas which cancel out the influence of interference caused by multiple-wave signal propagation.

The modem is designed to modulate and demodulate signals with two- and four-phase keying, the transmission rate of which will range from 75 bit/s to 32 kbit/s. In

the opinion of foreign experts, transmission rates of 75, 2400, 16,000, and 19,200 bit/s will be most common in the satellite communications system, and 2400 bit/s in the Fleetsatcom system.

The intermediate memory is for coupling terminals with high-speed transmitting equipment.

The JTIDS joint tactical information distribution system is presently being developed for all branches of the U.S. armed forces. In the opinion of foreign experts, it will provide secure, jam-resistant radio communications, identification and determination of the mutual position of ships and aircraft in task forces. It is believed that the broadband transmission methods employed in the system reduce the probability of interception of emissions by hostile electronic intelligence means. The frequency band 962-1215 MHz has been assigned to this system. In addition, it provides the capability to radiate signals distributed across a broad frequency band, and the spectral density of useful signals is comparable to the noise level, which ensures a high degree of security of transmitted messages. System jamming resistance is enhanced by the use of a redundant code, and errors can be not only detected but corrected as well.

The adopted time sharing method consists in sequential transmission of available information by all correspondents. For this, each is assigned a specified time interval. Code division makes it possible to establish 128 networks for data transmission in a single area. In the opinion of foreign experts, however, for practical purposes approximately 20 networks will be used, due to mutual station interference.\*

In connection with the fact that development of wideband communications systems took place independently in the U.S. Air Force and Navy, there are presently three versions of system equipment. All versions employ pulse modulation, data encoding, and frequency jumping.

According to data in the foreign press, up to the present time one of the versions of this equipment has been tested, to be installed at command posts, on aircraft carriers and on E-2C Hawkeye radar early warning aircraft.

It is planned to complete by 1984 development of the JTIDS system and to make it operational.

U.S. military experts specify the following principal directions of future development of digital data communications systems: decrease in equipment weight and size, improved specifications (reliability, survivability, simplicity of operation and servicing), improved jamming resistance, as well as standardization of equipment in the different branches of the U.S. armed forces and those of the NATO member nations.

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\*For more detail, see ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No 3, 1979, pp 51-52 -- Ed.

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